TIME ALLOTTED – 2HRS

INSTRUCTIONS FOR CANDIDATES

- 1. Total Number of Questions-100. Each Question is of three marks.
- 2. One mark will be deducted for every wrong answer.
- 3. No mark will be deducted for un-attempted questions.
- 4. Do not write on the Question Paper or make any mark on it.

Q1-3. Read the following passage carefully and answer the questions given below it:-

In spring, polar bear mothers emerge from dens with three months old cubs. The mother bear has fasted for as long as eight months but that does not stop the young from demanding full access to her remaining reserves. If there are triplets, the most persistent stands to gain an extra meal at the expense of others. The smallest of the cubs forfeits many meals to stronger siblings. Females are protective of their cubs but tend to ignore family rivalry over food. In 21 years of photographing polar bears, I have only once seen the smallest of triplets survive till autumn.

Q1. Female polar bears give birth during

- (a) Spring
- (b) Summer
- (c) Autumn
- (d) Winter

Q2. Mother bear

- (a) Takes sides over cubs
- (b) Lets the cubs fend for themselves
- (c) Feeds only their favourites
- (d) Sees that all cubs get an equal share

Q3. With reference to the passage, the following assumptions have been made:-

- I. Polar bears fast as long as eight months due to non availability of prey.
- II. Polar bears always give birth to triplets.

Which of the assumptions given above is/ are true?

(a)	I only	(b)	II only	(c)	Both I and II	(d)	Neither I nor II
· · ·		()		· · ·		• • •	

Q4-9 Select the most appropriate word from the options against each number:-

As home entertainment, television is rapidly becoming more (<u>4</u>) than any other form. A news broadcast becomes more immediate when people (<u>5</u>) actually see the scene (<u>6</u>) question and the movement of the figures. Films could be viewed in the (<u>7</u>) of the home and a variety of shows are also available. One of the advantages of travel programmes is the (<u>8</u>) of faraway places which many viewers would not (<u>9</u>) see.

Q4.	(a)	interesting	(b)	popular	(c)	powerful	(d)	purposeful		
Q5.	(a)	could	(b)	would	(c)	might	(d)	shall		
Q6.	(a)	of	(b)	with	(c)	as	(d)	in		
Q7.	(a)	surroundings	(b)	assistance	(c)	comfort	(d)	privilege		
Q8.	(a)	glimpses	(b)	image	(c)	portrait	(d)	picture		
Q9.	(a)	possible	(b)	rather	(c)	else	(d)	otherwise		
Q10-1	3.	Choose the v	Choose the word which is nearest in meaning to the given word:-							
Q10.	(a)	Authoritative	(b)	Impersonal	(c)	Strenuous	(d)	Unbending		
Q11.	Intimid (a)	late Mislead	(b)	Misplace	(c)	Frighten	(d)	Demoralise		
Q12.	Spora (a)	dic Epidemic	(b)	Whirling	(c)	Occasional	(d)	Stagnant		
Q13.	Genes (a)	sis Style	(b)	Beainnina	(c)	Movement	(d)	Relevant		

Q14-1 Q14.	7. Cho Malevo	oose the word	which	is nearly oppo	osite in	meaning to th	e give	n word:	:-	
	(a)	Kindly	(b)	Vacuous	(c)	Ambivalent	(d)	Primiti	ive	
Q15.	Purgat (a)	tory Reward	(b)	Celestial	(c)	Flawless	(d)	Proxin	nity	
Q16.	Cleme (a)	ncy Corporal	(b)	Intolerance	(c)	Compromise	(d)	Sensil	bility	
Q17.	Cajole (a)	Nestle	(b)	Secede	(c)	Bully	(d)	Moiste	en	
Q18-2										
Q18.	in wea (a) (c)	By hook or cro in prosperity a	ook and adv	ersity	(b) (d)	During illness During the operation				
Q19.	Globet (a) (c)	trotters People agains Intelligent min	st globa ids	l philosophy	(b) (d)	People indulg Travellers aro	ing in tr und the	eacher world	у	
Q20.	A Curt (a) (c)	ain Lecture To speak plai Private scoldi	nly ng of a	husband by his	s wife	(b) (d)	Vulgar Hate c	r Ideas others		
Q21.	Square (a) (c)	e pegs in round A genuinely h People in the	d holes elpful p wrong j	erson obs	(b) (d)	A Clever person To be perplexed				
Q22-2	5. Cho	oose the corre	ectly sp	elt word:-		_ · · · /		(1)	_ ,	
Q22.	(a)	Equanimity	(b)	Equannimity	(C)	Equanimmisty	/	(d)	Equinimity	
Q23.	(a)	Vetarinary	(b)	Veteninary	(C)	Veterinary		(d)	Vetniary	
Q24.	(a)	Konnoisseur	(b)	Conoisseur	(c)	Connoisseur		(d)	Konoisseur	
Q25.	(a)	Munifisent	(b)	Muneficent	(c)	Munificent		(d)	Munificient	
Q26-2	9. Whi	ch word or wo	ords ex	plains the mea	aning o	f the following	j idiom	S:-		
Q26.	in a jifi (a)	v Outstanding	(b)	Suddenly	(c)	In a fix		(d)	Appropriate	
Q27.	Upto tl (a) (c)	he hilt Completely Upto the final	decisio	n	(b) (d)	Upto the mar None of these	k 9			
Q28.	Man o (a) (c)	f Letters Who writes to A politician	o many	letters	(b) (d)	An important person A literary person				
Q29.	Sangfr (a) (c)	oid Composure Changed Sud	ldenly		(b) (d)	Go on leave Make an atter	npt			
Q30-6	5. Cho	oose the most	appro	oriate answer:	-					
Q30.	Which (a)	country among Sierra Leone	g the fo (b)	lowing has bee Liberia	en decla (c)	ared Ebola-free Nigeria	by WH (d)	O? Guine	а	
Q31.	How m (a)	nany Gold med 10	lals did (b)	India win in the 11	Incheo (c)	n Asian Games 12	s held ir (d)	ו Oct 20 8	014?	
Q32.	Who h (a) (c)	as been appoir Arvind Mayara Kaushik Basu	nted as am I	the new Finan	ce Secr (b) (d)	etary of India? Rajiv Mehrish Dinesh Gupta	i			

Q33.	Which (a)	among the foll Agni II	owing is (b)	s India's first lo Prithvi	ng rang (c)	e subsonic crui Dhanush	ise miss (d)	sile? Nirbhay
Q34.	The br (a)	anch of science Cytology	e that s (b)	tudies cells is o Entomology	called (c)	Homoplastic	(d)	Hormonology
Q35.	How m	nany Vice Presi	dents a	are elected at th	ne start	of its each regu	ular ses	sion of UN General
	(a)	Nine	(b)	Fifteen	(c)	Two	(d)	Twenty one
Q36.	The hi	ghest civilian a	ward of n Mand	India 'Bharat F	Ratna' h is	as been award	led to o	nly two foreigners so far.
	(a) (c)	Marshal Tito Khan Abdul G	haffar ł	Khan	(b) (d)	Mikhail Gorba Abdul Wali Kh	ichev nan	
Q37.	Sir CV pheno	Raman was av menon of radia	warded tion?	Nobel Prize fo	r his wo	rk connected v	vith whi	ch of the following
038	(a) In whic	Scallenny	(u) adauar	Dimaction	(C) Nevelopr	nent Bank loca	(u) ted2	Polarisation
Q00.	(a)	Manila	(b)	Singapore	(c)	Bangkok	(d)	Jakarta
Q39.	K-15 n (a) (b) (c) (d)	nissile is Submarine lau Inter Continen Medium Rang Short Range I	unched Ital Ball Ie Ballis Ballistic	Ballistic Missile istic Missile (IC tic Missile (MR Missile (SRBM	e (SLBN 3BM) 3BM) 4)	1)		
Q40.	India a one of (a)	agreed to UN C the following re UNCCT	hief Bar ecently. (b)	n Ki-Moon's off UNICEF	fer to re (c)	main as a merr UNEP	nber of t (d)	the advisory board of UNCTAD
Q41.	Kazira (a) (c)	nga National P One-horned R Swamp Dears	ark is fa Rhinos 6 (Baras	amous for singha)	(b) (d)	Tigers Elephants		
Q42.	Who w (a) (c)	vas the first Ind Milkha Singh Karnam Malle	ian to w shwari	<i>i</i> in an individua	ll medal (b) (d)	in Olympics? PT Usha KD Jadhav		
Q43.	Who a	mong the follow	wing wa	s the Congres	s Presic	lent at Madras	Sessio	n of 1927 when it
	boycot (a) (c)	Maulana Abul Lala Lajpat Ra	Commi Kalam ai	Azad	(b) (d)	MA Ansari Subhash Cha	ndra Bo	ose
Q44.	Why d (a) (b) (c) (d)	id Kalinga prov Ashoka annex It was the star Ashoka becar It enabled Ma	e to be ked Kali ting po ne a ze uryan E	a turning point nga int of the expar alous Buddhist impire to reach	in the linsion of t its clim	fe of Ashoka? his empire ax		
Q45.	Which (a) (c)	of the following Crime Branch Political Branc	g wings ch	was not part o	f the es (b) (d)	pionage systen Special Branc None of these	n descr :h :	ibed by Kautilya?
Q46.	Alaudo (a) (c)	din Khalji did no Siri Fort Hauz-i-Alai	ot build		(b) (d)	Tomb of Jalal Jamaat Khana	uddin a Masjio	d
Q47.	Which (a)	of the following Nanda	g dynas (b)	ties was ruling Maurya	over No (c)	orth India at the Sunga	e time o (d)	f Alexander's invasion? Kanva
Q48.	Which (a)	of the following Agni-I	g Interc (b)	ontinental Balli Agni-II	stic Mis (c)	siles (ICBMs) is Agni-IV	s under (d)	development in India? Agni-VI

Q49.	Who among the following was adjudged as the held at Incheon, South Korea? (a) Mary Kom of India (b	Most Valuable Player of the	17 th Asian Games n
	(c) Ning Zetao of China (d) None of these	
Q50.	The opposition party status is accorded to a p least	olitical party in the Lok Sabha	a only if it captures at
	(a) 5% Seats (b) 10% Seats (c) 15% Seats (0	d) 20% Seats
Q51.	Who amongst the following is the author of the (a) Chetan Bhagat (b (c) Kiran Desai (d	book 'A Bend in the River'?) VS Naipaul) Anita Desai	
Q52.	'Long Walk to Freedom' is a book written by (a) Sonia Gandhi (b (c) Nelson Mandela (d) LK Advani) Benazir Bhutto	
Q53.	Which sports personality has been awarded th (a) Kapil Dev (b (c) Saina Nehwal (d	e honorary rank of Group Ca) Sania Mirza) Sachin Tendulkar	ptain by the IAF?
Q54.	A man travelled from a point A to B at the rate Kmph. If the whole journey took 5 hrs 48 minut (a) 30 Km (b) 24 Km (c	of 25 Kmph and walked back tes, the distance between A a) 20 Km (0	at the rate of 4 and B is d) 51.6 Km
Q55.	A Train travelling at a uniform speed clears a p telegraph post in 5 seconds. The speed of the (a) 36 km/h (b) 39 km/h (c	blatform 200 m long in 10 sec train is) 72 km/h (d	onds and passes a d) 78 km/h
Q56.	The price of sugar increases by 20% due to the family reduce the consumption of sugar so that (a) 20% (b) $18^{1}/\%$ (c)	e festive season. By what per there is no change in the ex) $16^{2}/\%$ (6	rcentage should a penditure? d) 16¹/ %
Q57.	A's salary is 20% lower than B's salary, which percent is C's salary more than A's salary? (a) 44.05% (b) 45.05% (c	is 15% lower than C's salary.) 46.05% (o	By how much d) 47.05%
Q58.	The average weight of 5 men is increased by 2	2 Kg when one of the men wh	ose weight is 60 Kg is
	replaced by a new man. The weight of the new (a) 50 Kg (b) 65 Kg (c	/ man is) 68 Kg (d	d) 70 Kg
Q59.	A and B can do a piece of work in 18 days; B days. In how many days B alone can finish the	and C can do it in 24 days, A work?	and C can do it in 36
• • • •	(a) 48 days (b) 45 days (c) $28 \frac{4}{5}$ days (0	d) 144 days
Q60.	A, B and C can do a piece of work in 20, 30 an do the work if he is assisted by B and C on eve (a) 12 days (b) 15 days (c	d 60 days respectively. In ho ery third day?) 16 days (d	w many days can A d) 18 days
Q61.	A man can row 9 $1/_3$ Kmph in still water and f	inds that it takes him thrice as	s much time to row up
	than as to row down the same distance in the (a) $3^{1}/_{3}$ Kmph (b) $3^{1}/_{9}$ Kmph (c)	river. The speed of the curren) 4²/ ₃ Kmph (it is (d) $4^{1}/_{3}$ Kmph
Q62.	The speed of a boat in still water is 10 Kmph. upstream in the same time, the speed of the st	lf it can travel 26 Km downstr ream is	eam and 14 Km
	(a) 2 Kmph (b) 2.5 Kmph (d	c) 3 Kmph (d	d) 4 Kmph
Q63.	If a sum becomes double in 16 years, how ma (a) $1\frac{1}{2}$ times (b) $1\frac{1}{3}$ times (c	ny times will it be in 8 years?) 1 $^{3}/_{4}$ times (6	d) $1^{1/4}$ times

- Q64. In how many years will a sum of Rs 800 at 10% per annum compounded semi-annually become Rs 926.10?
 - (a) $1^{1}/_{3}$ (b) $1^{1}/_{2}$ (c) $2^{1}/_{3}$ (d) $2^{1}/_{2}$
- Q65. A sells 2 TV sets, one at a loss of 15% and another at a profit of 15%. Find the loss/gain percentage in the overall transaction? (a) 2.25% (b) 3% (c) 4% (d) No profit, no loss

Q 66-70. Each of these questions given below contains three elements. These elements may or may not have some inter-linkage. Each group of elements may fit into one of these diagrams at (a), (b), (c) or (d). You have to indicate the group of elements which correctly fits into the diagrams.

Q66. Which of the following diagrams indicates the best relation between Doctors, Human Beings and Married People?



Q67. Which of the following diagrams indicates the best relation between Man, Worker and Garden?



Q68. Which of the following diagrams indicates the best relation between Males, Cousins and Nephews?



Q69. Which of the following diagrams indicates the best relation between Children, Naughty, and Studious?



Q70. Which of the following diagrams indicates the best relation between Thief, Criminal and Police?



Q71-75 In each of the following questions find out the alternative which will replace the question mark.

Q71.	Loath (a) (c)	: Coercion :: ?:? Detest : Caressing Irate : Antagonism	(b) (d)	Irritate : Caressing Reluctant : Persuasion
Q72.	Trilogy (a) (c)	/ : Novel :: ?:? Rice : Husk Serial : Episode	(b) (d)	Milk : Cream Gun : Cartridge
Q73	Wife : (a) (c)	Marriage :: ?:? Bank : Money Service : Qualification	(b) (d)	Nationality : Citizenship Attendance : Register
Q74.	East : (a) (c)	Orient :: ?:? North : Polar South : Capricorn	(b) (d)	North : Tropic West : Occident
Q75.	Ignom (a) (c)	iny : Disloyalty :: ?:? Death : Victory Fame : Heroism	(b) (d)	Martyr : Man Destruction : Victory

Q76-80. In each of the following questions, four words have been given out of which three are alike in some manner, while the fourth one is different. Choose the word which is different from the rest.

Q76.	(a)	Aravalli hills	(b)	Shivalik hills	(c)	Mole hills	(d)	Satpura hills
Q77.	(a)	Beaver	(b)	Alpaca	(c)	Walrus	(d)	Koala
Q78.	(a)	Othello	(b)	King Lear	(c)	Oliver Twist	(d)	Macbeth
Q79.	(a)	Nimitz	(b)	Yamamoto	(c)	Nelson	(d)	Montgomery
Q80.	(a)	Blaze	(b)	Glint	(c)	Simmer	(d)	Shimmer

Q81-85. In each of the following questions, select a figure from amongst the four alternatives, which when placed in the blank space of figure (X) would complete the pattern. Q81.



Q84.



Q86-90. Each of the following questions consists of five figures marked 1,2,3,4 and 5 called the Problem Figures followed by four other figures marked a, b, c and d called the Answer Figures. Select a figure from amongst the Answer Figures which will continue the same series as established by the five Problem Figures.



Q91-95. Each of the following questions consists of two sets of figures. Figures 1, 2, 3 and 4 constitute the Problem Set while figures a, b, c and d constitute the Answer Set. There is a definite relationship between figures (1) and (2). Establish a similar relationship between figures (3) and (4) by selecting a suitable figure from the Answer set that would replace the question mark (?) in fig.(4).

Q91.



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Q96-100. In each problem, out of the four figures marked (a) (b) (c) and (d) three are similar in a certain manner. However, one figure is not like the other three. Choose the figure which is different from the rest.

Q96.

~	F-	→	•
(a)	(b)	(c)	(d)

Q97.



112

(d)

\$/To 0}

(a)

Q99.



(b)

(C)

AFCAT Model Question Paper-II

INSTRUCTIONS FOR CANDIDATES

TIME ALLOTTED – 2HRS

- **1.** Total Number of Questions-100. Each Question is of three marks.
- 2. One mark will be deducted for every wrong answer.
- 3. No mark will be deducted for un-attempted questions.
- 4. Do not write on the Question Paper or make any mark on it.

Q1-4. Which word or words explains the meaning of the following idioms:-

Q1.	In a ji (a)	ffy Outstanding	(b)	Suddenly	(c)	In a fix	(d)	Appropriate
Q2.	Upto (a) (c)	the hilt Completely Upto the final	l decisi	on	(b) (d)	Upto the n None of th	nark lese	
Q3.	Man ((a) (c)	Man of Letters (a) Who writes too many letters (c) A politician				An importa A literary p	ant persor person	1
Q4.	Sang (a) (c)	froid Composure Changed Sud	ddenly		(b) (d)	Go on lea Make an a	ve ittempt	

Q5-10 Select the most appropriate word from the options against each number:-

As home entertainment, television is rapidly becoming more (5) than any other form. A news broadcast becomes more immediate when people (6) actually see the scene (7) question and the movement of the figures. Films could be viewed in the (8) of the home and a variety of shows are also available. One of the advantages of travel programmes is the (9) of faraway places which many viewers would not (10) see.

Q5.	(a)	interesting	(b)	popular	(c)	powerful	(d)	purposeful
Q6.	(a)	could	(b)	would	(c)	might	(d)	shall
Q7.	(a)	of	(b)	with	(c)	as	(d)	in
Q8.	(a)	surroundings	(b)	assistance	(c)	comfort	(d)	privilege
Q9.	(a)	glimpses	(b)	image	(c)	portrait	(d)	picture
Q10.	(a)	possible	(b)	rather	(c)	else	(d)	otherwise
Q11-1	4. Cho	ose the word	which i	s nearest in m	eaning	to the given w	vord:-	
Q11.	Sporad (a)	dic Epidemic	(b)	Whirling	(c)	Occasional	(d)	Stagnant
Q12.	Genes (a)	is Style	(b)	Beginning	(c)	Movement	(d)	Relevant
Q13.	Intrans (a)	sigent Authoritative	(b)	Impersonal	(c)	Strenuous	(d)	Unbending
Q14.	Intimid (a)	ate Mislead	(b)	Misplace	(c)	Frighten	(d)	Demoralise

Q15-18. Choose the word which is nearly opposite in meaning to the given word:-

Q15.	Cleme (a)	ency Corporal	(b)	Intolerance	(c)	Compromise	(d)	Sensibility
Q16.	Cajole (a)	Nestle	(b)	Secede	(c)	Bully	(d)	Moisten

047	Mala	un la un f		2				
Q17.	iviale (a)	Kindly	(b)	Vacuous	(c)	Ambivalent	(d)	Primitive
Q18.	Purg	atory						
	(a)	Reward	(b)	Celestial	(c)	Flawless	(d)	Proximity

2

Q19-21. Read the following passage carefully and answer the questions given below it:-

In spring, polar bear mothers emerge from dens with three months old cubs. The mother bear has fasted for as long as eight months but that does not stop the young from demanding full access to her remaining reserves. If there are triplets, the most persistent stands to gain an extra meal at the expense of others. The smallest of the cubs forfeits many meals to stronger siblings. Females are protective of their cubs but tend to ignore family rivalry over food. In 21 years of photographing polar bears, I have only once seen the smallest of triplets survive till autumn.

Q19. With reference to the passage, the following assumptions have been made:-

- I. Polar bears fast as long as eight months due to non availability of prey.
- II. Polar bears always give birth to triplets.
- Which of the assumptions given above is/ are true?

(a) I only (b) II only (c) Both I and II (d) Neither I nor II

Q20. Female polar bears give birth during

- (a) Spring
- (b) Summer
- (c) Autumn
- (d) Winter

Q21. Mother bear

- (a) Takes sides over cubs
- (b) Lets the cubs fend for themselves
- (c) Feeds only their favourites
- (d) Sees that all cubs get an equal share

Q22-25. Choose the word that best defines the given phrases:-

Q22.	A Curi (a) (c)	tain Lecture To speak plai Private scoldi	ture eak plainly e scolding of a husband by his			(b) (d)	Vulgar Ideas Hate others		
Q23.	Squar (a) (c)	e pegs in round A genuinely h People in the	d holes elpful p wrong j	erson jobs	(b) (d)	A Clever person To be perplexed			
Q24.	In wea (a) (c)	al and woe By hook or crook in prosperity and adversity			(b) (d)	During illness During the operation			
Q25.	Globe (a) (c)	etrotters People against global philosophy Intelligent minds			(b) (d)	People indulging in treachery Travellers around the world			
Q26-2	9. Ch	oose the corre	ectly sp	elt word:-					
Q26.	(a)	Konnoisseur	(b)	Conoisseur	(c)	Connoisseur	(d)	Konoisseur	
Q27.	(a)	Munifisent	(b)	Muneficent	(c)	Munificent	(d)	Munificient	
Q28.	(a)	Equanimity	(b)	Equannimity	(c)	Equanimmist	y (d)	Equinimity	
Q29.	(a)	Vetarinary	(b)	Veteninary	(c)	Veterinary	(d)	Vetniary	
Q30-6 Q30.	5. Ch A, B a	oose the most nd C can do a	appro	priate answer: f work in 20, 30	-) and 6() days respectiv	vely. In how m	any days can A	

do the work if he is assisted by B and C on every third day?

(a) 12 days (b) 15 days (c) 16 days (d) 18 days

Q31.	A mar	n can row 9 $^{1}/_{3}$	Kmph	in still water ar	nd finds	that it ta	akes him thrice	as muc	ch time to row up
	(a)	$3^{1}/_{3}$ Kmph	(b)	$3^{1/9}$ Kmph	(C)	$4^{2}/_{3}$ Kr	nph	(d)	$41/_3$ Kmph
Q32.	The s	peed of a boat	in still w	vater is 10 Kmp	oh. If it c	an trave	el 26 Km down	stream	and 14 Km
	(a)	2 Kmph	(b)	2.5 Kmph	(C)	3 Kmp	h	(d)	4 Kmph
Q33.	lf a su (a)	m becomes do 1 ½ times	uble in ⁷ (b)	16 years, how 1 $^{1}/_{3}$ times	many tir (c)	nes will 1 ³/ ₄	it be in 8 years times	s? (d)	1 ¹ / ₄ times
Q34.	In how Rs 926	many years w	ill a sun	n of Rs 800 at	10% pei	r annum	n compounded	semi-a	nnually become
	(a)	1 ¹ / ₃	(b)	1 ¹ / ₂	(c)	$2^{1/3}$		(d)	$2^{1}/_{2}$
Q35.	A sells percer	s 2 TV sets, on tage in the over 2 25%	one at a erall trar	a loss of 15% nsaction? 3%	and	nother a	at a profit of	15%. Fi	ind the loss/gain
Q36.	A man	travelled from	a point	A to B at the r	ate of 25	5 Kmph	and walked ba	ck at th	e rate of 4
Q 00.	Kmph.	If the whole jo	urney to	bok 5 hrs 48 m	inutes, t	he dista	ance between A	A and B	is 51.6 Km
0.07	(a)		(U) .,	24 MII	(0)	20 Kill		(u)	51.0 Kill
Q37.	A Trail telegra	n travelling at a aph post in 5 se	econds.	n speed clears The speed of t	a platfo he train	rm 200 is	m long in 10 s	econas	and passes a
	(a)	36 km/h	(b)	39 km/h	(c)	72 km/	/h	(d)	78 km/h
Q38.	The pr family	ice of sugar inc reduce the cor	creases	by 20% due to	the fes	tive sea re is no	ason. By what p change in the	percenta expend	age should a iture?
	(a)	20%	(b)	18 ¹ / ₃ %	(c)	16 ² / ₃ %	6 6	(d)	16 ¹ / ₃ %
Q39.	A's sa	lary is 20% low	er than	B's salary, whi	ch is 15	% lowe	r than C's sala	ry. By h	ow much
	percer (a)	44.05%	more th (b)	45.05%	(c)	46.05%	6	(d)	47.05%
Q40.	The av	verage weight o	of 5 mer	n is increased b	by 2 Kg	when o	ne of the men	whose v	veight is 60 Kg is
	replace (a)	ed by a new m 50 Kg	an. The (b)	65 Kg	new mar (c)	n is 68 Kg		(d)	70 Kg
Q41.	A and	B can do a pie	ece of w	ork in 18 days;	Band	C can d	lo it in 24 days,	A and	C can do it in 36
	days. I (a)	48 days	ays в аі (b)	45 days	(c)	κ <i>?</i> 28 ⁴ / ₅	days	(d)	144 days
Q42.	The o	pposition party	status i	is accorded to	a politic	al party	in the Lok Sab	ha only	if it captures at
	(a) 5	5% Seats	(b) 1	0% Seats	(c) 1	5% Sea	ats	(d)	20% Seats
Q43.	Who a	mongst the foll	owing is	s the author of	the boo	k 'A Bei	nd in the River	?	
	(a) (c)	Kiran Desai	al		(d) (d)	Anita E	Desai		
Q44.	'Long '	Walk to Freedo	om' is a	book written by	/ "、				
	(a) (c)	Sonia Gandhi Nelson Mande	la		(b) (d)	LK Adv Benazi	vani ir Bhutto		
Q45.	Which	sports persona	ality has	been awarded	d the ho	norary r	rank of Group (Captain	by the IAF?
	(a) (c)	Kapil Dev Saina Nehwal	-		(b) (d)	Sania Sachin	Mirza Tendulkar	-	

Q46.	Which (a)	country amono Sierra Leone	g the fol (b)	lowing has bee Liberia	en decla (c)	red Ebola-free Nigeria	by WH (d)	O? Guinea
Q47.	How ma (a)	any Gold med 10	als did (b)	India win in the 11	Incheo (c)	n Asian Games 12	s held ir (d)	n Oct 2014? 8
Q48.	Who ha (a) (c)	as been appoir Arvind Mayara Kaushik Basu	nted as am	the new Finand	ce Secr (b) (d)	etary of India? Rajiv Mehrish Dinesh Gupta	i	
Q49.	Which a (a)	among the foll Agni II	owing is (b)	s India's first lo Prithvi	ng rang (c)	e subsonic crui Dhanush	ise miss (d)	sile? Nirbhay
Q50.	The bra (a)	anch of scienc Cytology	e that s (b)	tudies cells is c Entomology	alled (c)	Homoplastic	(d)	Hormonology
Q51.	How ma Assemt	any Vice Pres oly?	idents a	re elected at th	ne start	of its each regu	ular ses	sion of UN General
	(a)	ININE	(D)	Fifteen	(C)	IWO	(a)	I wenty one
Q52.	The hig One of (a) (c)	hest civilian a them is Nelso Marshal Tito Khan Abdul G	ward of n Mand ihaffar ł	India 'Bharat F ela. The other Khan	Ratna' h is (b) (d)	as been award Mikhail Gorba Abdul Wali Kh	ed to o ichev nan	nly two foreigners so far.
Q53.	Sir CV phenon	Raman was a nenon of radia Scattering	warded tion?	Nobel Prize fo	r his wo	ork connected w	vith whic	ch of the following
Q54.	In whick	h city is heado	(b) Juarters	of Asian Deve	lopmen	t Bank located	(d)	
Q55.	(a) (a) (b) (c) (d)	issile is Submarine lau Inter Continer Medium Rang Short Range I	unched Ital Balli Je Ballis Ballistic	Ballistic Missile istic Missile (IC tic Missile (MR Missile (SRBM	(SLBN BM) BM) 1)	1)	(0)	Canana
Q56.	India ag one of t (a)	greed to UN C the following re UNCCT	hief Baı ecently. (b)	n Ki-Moon's off UNICEF	er to re	main as a merr UNEP	nber of t (d)	he advisory board of UNCTAD
Q57.	Kaziran (a) (c)	iga National P One-horned F Swamp Dears	ark is fa Rhinos s (Bara:	amous for singha)	(b) (d)	Tigers Elephants		
Q58.	Who wa (a) (c)	as the first Ind Milkha Singh Karnam Malle	ian to w shwari	rin an individua	l medal (b) (d)	in Olympics? PT Usha KD Jadhav		
Q59.	Who ar boycott (a) (c)	nong the follov ed the Simon Maulana Abul Lala Lajpat Ra	wing wa Commi Kalam ai	is the Congress ssion? Azad	s Presic (b) (d)	lent at Madras MA Ansari Subhash Cha	Sessior ndra Bo	n of 1927 when it
Q60.	Why dia (a) (b) (c) (d)	d Kalinga prov Ashoka anne It was the star Ashoka becar It enabled Ma	re to be ked Kali rting poi ne a ze uryan E	a turning point nga nt of the expar alous Buddhist mpire to reach	in the li nsion of its clim	ife of Ashoka? his empire ax		
Q61.	Which (a)	of the following Crime Branch	g wings	was not part o	f the es (b)	pionage systen Special Branc	n descri :h	bed by Kautilya?

(c) Political Branch (d) None of these

Q62.	Alaudo (a) (c)	lin Khalji did no Siri Fort Hauz-i-Alai	ot build		(b) (d)	Tomb of Jalalı Jamaat Khana	uddin a Masjio	ł
Q63.	Which (a)	of the following Nanda	g dynas (b)	ties was ruling Maurya	over No (c)	orth India at the Sunga	time o (d)	f Alexander's invasion? Kanva
Q64.	Which (a)	of the following Agni-I	g Interc (b)	ontinental Ballis Agni-II	stic Mis: (c)	siles (ICBMs) is Agni-IV	under (d)	development in India? Agni-VI
Q65.	Who a held at (a) (c)	mong the follov t Incheon, Sout Mary Kom of I Ning Zetao of	ving wa h Korea ndia China	as adjudged as a?	the Mos (b) (d)	st Valuable Play Kosuke Hagin None of these	ver of ti o of Ja	ne 17 th Asian Games pan
Q66-70 mark.	0 In ea	ch of the follo	wing c	uestions find	out the	e alternative w	hich w	ill replace the question
Q66.	East : (a) (c)	Orient :: ?:? North : Polar South : Capric	orn		(b) (d)	North : Tropic West : Occide	nt	
Q67.	Ignom (a) (c)	iny : Disloyalty Death : Victor Fame : Herois	:: ?:? y m		(b) (d)	Martyr : Man Destruction : \	/ictory	
Q68.	Loath (a) (c)	: Coercion :: ?:' Detest : Cares Irate : Antagor	? ssing nism		(b) (d)	Irritate : Cares Reluctant : Pe	sing rsuasio	n
Q69.	Trilogy (a) (c)	: Novel :: ?:? Rice : Husk Serial : Episoc	de		(b) (d)	Milk : Cream Gun : Cartridg	е	
Q70.	Wife : (a)	Marriage :: ?:? Bank : Monev			(b)	Nationality : C	itizensł	nip

(c) Service : Qualification (d) Attendance : Register

Q 71-75. Each of these questions given below contains three elements. These elements may or may not have some inter-linkage. Each group of elements may fit into one of these diagrams at (a), (b), (c) or (d). You have to indicate the group of elements which correctly fits into the diagrams.

Q71. Which of the following diagrams indicates the best relation between Doctors, Human Beings and Married People?



Q72. Which of the following diagrams indicates the best relation between Children, Naughty, and Studious?



Q73. Which of the following diagrams indicates the best relation between Thief, Criminal and Police?



Q74. Which of the following diagrams indicates the best relation between Man, Worker and Garden?



Q75. Which of the following diagrams indicates the best relation between Males, Cousins and Nephews?



Q76-80. In each of the following questions, select a figure from amongst the four alternatives, which when placed in the blank space of figure (X) would complete the pattern.

Q76. (X) (a) (b) (c) (d) Q77. 2 (X) (a) (b) (C) (d) Q78. (X) (a) (b) (d) (c) Q79. (X) (a) (d) (b) (c)

Q80.



Q81-85. Each of the following questions consists of five figures marked 1,2,3,4 and 5 called the Problem Figures followed by four other figures marked a, b, c and d called the Answer Figures. Select a figure from amongst the Answer Figures which will continue the same series as established by the five Problem Figures.



Q86-90. In each of the following questions, four words have been given out of which three are alike in some manner, while the fourth one is different. Choose the word which is different from the rest.

Q86.	(a)	Othello	(b)	King Lear	(c)	Oliver Twist	(d) Macbeth
Q87.	(a)	Nimitz	(b)	Yamamoto	(c)	Nelson	(d) Montgomery
Q88.	(a)	Blaze	(b)	Glint	(c)	Simmer	(d) Shimmer
Q89.	(a)	Aravalli hills	(b)	Shivalik hills	(c)	Mole hills	(d) Satpura hills
Q90.	(a)	Beaver	(b)	Alpaca	(c)	Walrus	(d) Koala

Q91-95. In each problem, out of the four figures marked (a) (b) (c) and (d) three are similar in a certain manner. However, one figure is not like the other three. Choose the figure which is different from the rest.





Q96-100. Each of the following questions consists of two sets of figures. Figures 1, 2, 3 and 4 constitute the Problem Set while figures a, b, c and d constitute the Answer Set. There is a definite relationship between figures (1) and (2). Establish a similar relationship between figures (3) and (4) by selecting a suitable figure from the Answer set that would replace the question mark (?) in fig.(4).

Q96.

(a)

(b)

(c)

(d)



TIME ALLOTTED – 2HRS

INSTRUCTIONS FOR CANDIDATES

- 1. Total No Of Questions-100. Each Question is of three marks.
- 2. One mark will be deducted for every wrong answer.
- 3. No mark will be deducted for un-attempted questions.
- 4. Do not write on the Question Paper or make any mark on it.

Q1-3. Read the following passage carefully and answer the questions given below it:-

Recently, a newspaper article mourned the total disappearance of the common house sparrow. This was a comment on the city's perceptible move towards edging out the flora and fauna of the city. In the rapid urbanization, multi-storied apartments grew and large scale felling of trees became necessary. Last week, however, seven pairs of these sparrows were spotted in a suburb. Possibly the greenery of this place has created a new habitat for these birds which like their proximity to human beings, and have made a comeback. A systematic development of trees and shrubs all over the city could woo the absentee house sparrow to our midst.

- Q1. In the passage the term "urbanisation" has been used to refer to
 - (a) the destruction of the greenery in the city
 - (b) construction of concrete structures on a large scale
 - (c) a change over from the rural life to the city life
 - (d) the movement of people from villages to cities
- Q2. The phrase "absentee house sparrow" refers to
 - (a) the sparrow that makes infrequent visits
 - (b) the sparrow that has forgotten its habitat
 - (c) the sparrow that has gone away from the urban areas
 - (d) the sparrow that has become extinct

Q3. According to the passage, the birds have made a comeback to the suburb because they

- (a) have been hunted down by the village people
- (b) Love to be amidst human beings
- (c) get food only where human beings live
- (d) they have been deliberately brought back by biologists

Q4-9 Select the most appropriate word from the options against each number:-

Watermelons ...(4)... to India by the 4th century A.D. Sushruta, the great Indian physician,(5)...wrote Sushruta Samhit, mentions that watermelons were grown ...(6).. the banks of the river Indus.(7)....are also mentioned in ancient books. Sushruta calls it as Kalinda or Kalinga (hence Kalingad in Marathi). It was...(8)..to China in the 10th or 11th century and ...(9)... it is grown throughout the tropics.

Q4.	(a)	came	(b)	go	(c)	arrived	(d)	started
Q5.	(a)	did	(b)	when	(c)	certainly	(d)	who
Q6.	(a)	above	(b)	outside	(c)	from	(d)	along
Q7.	(a)	it	(b)	they	(C)	some	(d)	that
Q8.	(a)	took	(b)	gave	(c)	taken	(d)	take
Q9.	(a)	also	(b)	though	(c)	now	(d)	tomorrow

Q10-13. Choose the word which is nearest in meaning to the given word:-

Q10. Embellish

(a)	Employ	(b)	Arrange
(c)	Decorate	(d)	Design

Q11. Damp Squib

- (a) Insignificant happening (b) An old technique
- (c) Unsuccessful attempt (d) Short, shrill cry

					2				
Q12.	Sagac (a)	ious Stupid	(b)	Truthful	(c)	Lustful	(d)	Discer	ning
Q13.	Pontifi (a) (c)	cate To speak auth To act clumsil	noritativ y	ely	(b) (d)	To raise to higher office To constitute			
Q14-1	7. Choo	ose the word w	vhich is	s nearly oppos	site in n	neaning to the	given	word:-	
Q14.	Parsin (a)	nonious Generous	(b)	Selfish	(c)	Religious	(d)	Hered	itary
Q15.	Vindic (a)	ate Censure	(b)	Favour	(c)	Indicate	(d)	Eradic	ate
Q16.	Spora (a)	dic Rare	(b)	Frequent	(c)	Sharp	(d)	Coord	inated
Q17.	Exone (a)	rate Reject	(b)	Contract	(c)	Accuse	(d)	Admit	
Q18-2	1. Choo	ose the word t	hat bes	st defines the g	given p	hrases:-			
Q18.	Cloak (a) (c)	and dagger To fight to a fi To end the ho	nish stility		(b) (d)	To get into un Like a spy	expecte	ed troub	le
Q19.	To be at the end of one's tether (a) To feel offended (c) To have no resources left			her s left	(b) (d)	To draw moral attention To think deeply			
Q20.	All ago (a) (c)	All agog (a) Work helplessly (c) In a state of excitement				Lose conscio Fall flat	usness		
Q21.	Espirit (a)	de Corps Bravery	(b)	Loyalty	(c)	Subordination		(d)	Unity
Q22-2 Q22.	5. Cho (a)	oose the corre Omminous	ctly sp (b)	elt word:- Omineous	(c)	Ominous		(d)	Omenous
Q23.	(a)	Hindrance	(b)	Hinderance	(c)	Hindrence		(d)	Hinderence
Q24.	(a)	Perjery	(b)	Perjury	(c)	Purjury		(d)	Perjary
Q25.	(a)	Reminiscene	(b)	Reminiscence	(c)	Reminicence		(d)	Remeniscence
Q26-2	9. Whi	ch word or wo	ords ex	plains the mea	ning o	f the following	idiom:	s:-	
Q26.	A blue (a) (c)	stocking Stocking whic An unreliable	h is blu person	e in colour	(b) (d)	A clean cheat a woman havi and learning	ng litera	ary taste	es
Q27.	Yeoma (a) (c)	an's service lip-service to play god fa	ther		(b) (d)	to serve like a efficient or use	slave eful helj	C	
Q28.	Lay ba (a) (c)	are Expose Destroy			(b) (d)	Take off all clo Exploit	othes		
Q29.	A wolf (a) (c)	in sheep's clot A hypocrite A coward	hing		(b) (d)	A wolf in wool A proud man	en cloth	nes	

Q30-6	5. Choose the most appropriate answer	:-	
Q30.	The national emblem, viz four lions standir following:-	ng back	to back is an adaptation from which of the
	(a) Sarnath lions (c) Khajurao	(b) (d)	Gir lions Ajanta caves
Q31.	Who among the following is not a recipient (a) Ashapurna Devi (c) Raghupati Sahay	t of the ' (b) (d)	Bharatiya Jnanpith' Award? MF Hussain VK Gokak
Q32.	Global 500 awards are given for outstandir (a) Population Control (c) Campaigning against AIDS	ng achie (b) (d)	evement in which of the following fields? Elimination of illiteracy Protection of environment
Q33.	Pulitzer Prize is awarded for the outstandir (a) Science and Technology (c) Literature and Journalism	ng work (b) (d)	in the field of Environmental Studies International Understanding
Q34.	Who was the founder of Nanda dynasty? (a) Bimbisara (c) Ajatasatru	(b) (d)	Mahapadma Nanda Dhana Nanda
Q35.	 Which of the following books is written by <i>i</i> (a) Mankind and Mother Earth (c) The Future of Freedom 	Arnold T (b) (d)	oynbee? Tom Sawyer The Moon's Last Sigh
Q36.	The presidency of the UN Security Council (a) Every 6 months (c) Every 3 months	l rotates (b) (d)	among the Council Members Every year Every month
Q37.	Who were the contemporaries of the Gupta (a) Chola (c) Satavahanas	a Kings (b) (d)	in the south? Rashtrakutas Vakatkas
Q38.	Who was the person behind conversion of regional power?	East In	dia Company from a trading company into a
	(c) Lord Dalhousie	(d) (d)	Lord Wellesley
Q39.	Who inscribed the name of Khalifa of Bagh (a) Ala-ud-din Khilji (c) Qutub-ud-in Aibak	ndad on (b) (d)	his coins? Iltutmish Balban
Q40.	Who among the following Sultans of Delhi (a) Balban	assume (b)	ed the title, 'Sikandar-i-Sani? Ala-ud-din Khilji
	(c) Muhammad-bin-Tughlaq	(d)	Sikander Lodhi
Q41.	 UN General Assembly recently declared 2 (a) International Youth Day (c) International Day of Yoga 	1st June (b) (d)	e as International Literacy Day International Day of Peace
Q42.	The member countries of NAFTA are (a) USA, Canada and Mexico (c) USA and Canada	(b) (d)	Canada and Mexico Argentina and Brazil
Q43.	Sandeep Sejwal won the Bronze medal in (a) 200m backstroke (c) 50m breaststroke	2014 As (b) (d)	sian Games in which of the following events? 200m freestyle 50m butterfly
Q44.	The Indian space programme began in (a) 1961 (b) 1962	(c)	1965 (d) 1969

Q45.	'Bachp	oan Bachao An	dolan (E	3BA)', an orgar	nisation	to protect the r	rights of	children was foun	ded
	by (a) (c)	Amir Khan Om Prakash (Gurjar		(b) (d)	Kailash Satya Santa Sinha	rthi		
Q46.	Manga (a)	alyan, Mars Orb Jan 2013	oiter Mis (b)	sion (MOM) wa Oct 2012	as laun (c)	ched in Oct 2013	(d)	Nov 2013	
Q47.	"Ruhr (a)	of India" known Uttar Pradesh	for its i (b)	rich coal depos Jharkhand	its is in (c)	the State of West Bengal	(d)	Bihar	
Q48.	Which	of the following	g Subso	onic missiles, te	est fired	in October 201	4 is cor	nsidered India's an	swer
	to Ame (a) E	erica's Tomaha Brahmos Mk-2	wk miss (b)	sile Prahaar	(c) N	irbhay	(d)	Agni-V	
Q49.	Who a 2014?	among the follo	owing v	von the World	Billiard	ls Championsh	nip held	in England in O	ctober
	(a) (c)	Peter Gilchrist Saurav Kotha	: ri		(b) (d)	Pankaj Advan None of these	ii Ə		
Q50.	Which	country will ho	st the X	XXI Olympic G	ames i	n 2016?			
	(a) (c)	Rio de Janeiro Tokyo, Japan	o, Brazil		(d) (d)	Chicago, USA Doha, Qatar	N		
Q51.	The bo	ook, "A China P	assage	' was written b	у (ь.)	1			
	(a) (c)	MJ Akbar Anees Jung			(d) (d)	Jagmonan John Kenneth	Galbra	ith	
Q52.	A can goes a	do a piece of w way. In how ma	ork in 2 any day	0 days and B i vs will A finish t	n 25 da he worł	ys. They work	togethe	r for 5 days and th	en B
	(a)	11 days	(b)	9 days	(C)	20 days	(d)	21 days	
Q53.	Two tr speeds (a)	ain A & B each s are 50 Kmph 28 Sec	66 met and 30 (b)	ers long run pa Kmph respecti 28.46 Sec	arallel to vely. In (c)	each other in what time A wi 53.46 Sec	the sam ill comp (d)	ne direction. Their letely pass B. 23.76 Sec	
Q54.	A train	77.5 m in leng	th is rur	nning at the rat	e of 65	Kmph. Find the	e time ta	ken by the train to	pass
	the ma (a)	an walking in the 2.5 Sec	e same (b)	direction as th 4.5 Sec	e train (c)	@ 3 Kmph. 6.5 Sec	(d)	8 Sec	
Q55.	Ram c minute	an row 7½ Km to row to a pl	ph in sti ace and	ill water. If in a d back. how fai	river ru	nning at 1.5 Kn blace?	n an hoi	ur, it takes him 50	
	(a)	3.5 Km	(b)	3 Km	(c)	4.5 Km	(d)	5 Km	
Q56.	A moto covers (a)	orboat with spe the distance ir 4	ed 15 K 1 4 hour (b)	mph in still wa s and 30 minu 5	ter goes tes. The (c)	s 30 Km downs speed of the s 6	stream a stream i (d)	nd comes back. It n Km/h is? 10	
Q57.	Zinc a	nd copper are r	nelted t	ogether in the	ratio 9:1	1. What is the	weiaht	of the melted mixtu	ure. if
	28.8 kg	g of zinc has be	en con	sumed in it?	(c)	64 Ka	(d)	70 Kg	
059		bia gooda 20%	(b)	or then D and	(U)	or ity		h perceptore in C'	
Q58.	goods	cheaper / dear	er than	B.	20% de			n percentage is C s	5
050	(a) The second	33.33%	(b)	50%	(C)	45.85%	(d)	None of these	
Q59.	1 ne av 1. Wha	erage of 6 obs at will be the 7 th	ervatior observ	ration?	/ ODSE	rvation is inclue	ded, the	e average is reduce	ea by
	(a) 4		(b)	5	(c)	6	(d)	7	
Q60.	If the in find the	ncomes of Ram e ratio of their s	n & Shy avings,	am are in the r given that Shy	atio of 3 /am sav	3:4 and their ex res a third of his	penditu s incom	res in the ratio of 4 e. 13:15	:5,
	(4)	10.10	(0)	10.20	(\mathbf{U})	10.20	(u)	10.10	

Q61.	The su	m of ages of	4 childrer	h born at the	interval o	f 2 years is 52	. What is	s the age	of the oldest
	child?								
			<i></i> .						

- (a) 10 years (b) 12 years (c) 14 years (d) 16 years
- Q62. A certain sum under compound interest, compounded annually, amounts to Rs. 5500/- in 5 years and Rs. 6050/- in 6 years. What is the rate of interest?
 (a) 12 ½ %
 (b) 15%
 (c) 20%
 (d) 10%
- Q63. Rs. 800 becomes Rs. 956 in 3 years at a certain rate of simple interest. If the rate of interest is increased by 4%, what amount will Rs. 800 becomes in 3 years?
 (a) Rs 1020.80 (b) Rs 1025 (c) Rs 1052 (d) Rs 1000
- Q64. A sum of money lent out at simple interest amounts to Rs 720 after 2 years and to Rs 1020 after a further period of 5 years. The sum is (a) Rs 500 (b) Rs 600 (c) Rs 700 (d) Rs 750
- Q65. Present age of X and Y are in the ratio 7:5 respectively. Four years hence, the ratio of their ages will become 11:9 respectively. What is the present age of Y?
 (a) 1 year
 (b) 7 year
 (c) 5 year
 (d) None of these

Q 66-70. Each of these questions given below contains three elements. These elements may or may not have some inter-linkage. Each group of elements may fit into one of these diagrams at (a), (b), (c) or (d). You have to indicate the group of elements which correctly fits into the diagrams.

Q66. Which of the following diagrams indicates the best relation between Biology, Zoology and Physics?



Q67. Which of the following diagrams indicates the best relation between Stamp, Pen and Chalk?



Q68. Which of the following diagrams indicates the best relation between Singers, Athletes and Girls?



Q69. Which of the following diagrams indicates the best relation between Teachers, Women and Doctors?



Q70. Which of the following diagrams indicates the best relation between Clothes, Flowers and White?



Q71-75 In each of the following questions find out the alternative which will replace the question mark ~ ~

IIIC	n,	•
<u> </u>		

Q71.	Cereb (a) (c)	rum : Brain :: ?:? Aorta : Hand Ventricle : Heart	(b) (d)	Ligament : Blood Country : Universe
Q72.	Monur (a) (c)	nent : Cenotaph :: ?:? Orifice : Opening Protect : Protocol	(b) (d)	Guide : Follower Sponsor : Cleave
Q73.	Meado (a) (c)	ow : Sheep :: ?:? Stable : Horse Grass : Grasshopper	(b) (d)	Hay : Insect Pasture : Cattle
Q74.	Sadist (a) (c)	: Injury :: ?:? Opportunist : Generosity Dentist : Teeth	(b) (d)	Priest : Church Thief : Robbery
Q75.	Lecher (a) (c)	rous : Carnal :: ?:? Virile : Feeble Impede : Begin	(b) (d)	Diatribe : Abuse Sunder : Link

Q76-80 In each of the following questions, four words have been given out of which three are alike in some manner, while the fourth one is different. Choose the word which is different from the rest.

Q76.	(a)	Niger	(b)	Suez	(c)	Mississippi	(d)	Colorado
Q77.	(a)	Bang	(b)	Hiss	(c)	Whistle	(d)	Wink
Q78.	(a)	Gold	(b)	Silver	(c)	Bronze	(d)	Iron
Q79.	(a)	Mendicant	(b)	Ascetic	(c)	Pious	(d)	Hermit
Q80.	(a)	Bardoli	(b)	Bhadravati	(c)	Porbandar	(d)	Champaran

Q81-85. In each of the following questions, select a figure from amongst the four alternatives, which when placed in the blank space of figure (X) would complete the pattern. Q81.



Q82.



Q83.



Q84.



Q85.



Q86-90. Each of the following questions consists of five figures marked 1,2,3,4 and 5 called the Problem Figures followed by four other figures marked a, b, c and d called the Answer Figures. Select a figure from amongst the Answer Figures which will continue the same series as established by the five Problem Figures.



Q91-95. Each of the following questions consists of two sets of figures. Figures 1, 2, 3 and 4 constitute the Problem Set while figures a, b, c and d constitute the Answer Set. There is a definite relationship between figures (1) and (2). Establish a similar relationship between figures (3) and (4) by selecting a suitable figure from the Answer set that would replace the question mark (?) in fig (4).



Q96-100. In each problem, out of the four figures marked (a) (b) (c) and (d) three are similar in a certain manner. However, one figure is not like the other three. Choose the figure which is different from the rest.

Q96.



AFCAT Model Question Paper-IV

INSTRUCTIONS FOR CANDIDATES

TIME ALLOTTED - 2HRS

- Total No Of Questions-100. Each Question is of three marks. 1.
- 2. One mark will be deducted for every wrong answer.
- 3.

No mark will be deducted for un-attempted questions. Do not write on the Question Paper or make any mark on it. 4.

Q1-4. Choose the word which is nearest in meaning to the given word:-

Q1.	Sagac (a)	ious Stupid	(b)	Truthfu	ıl	(c)	Lustful			(d)	Discerning
Q2.	Pontifie (a) (c)	cate To speak auth To act clumsil	noritativ y	ely		(b) (d)	To rais To cor	se to hig Istitute	gher offi	се	
Q3.	Embel (a) (c)	lish Employ Decorate				(b) (d)	Arrang Desigr	je 1			
Q4.	Damp (a) (c)	Squib Insignificant h Unsuccessful	appenir attemp	ng t		(b) (d)	An old Short,	technic shrill cr	que y		
Q5-8.	Choose	e the word tha	t best o	defines	the giv	en phra	ases:-				
Q5.	All ago (a) (c)	g Work helpless In a state of e	sly xciteme	ent		(b) (d)	Lose c Fall fla	onsciou t	usness		
Q6.	Espirit (a)	de Corps Bravery	(b)	Loyalty	ý	(c)	Suboro	dination		(d)	Unity
Q7.	Cloak (a) (c)	and dagger To fight to a fi To end the ho	nish stility			(b) (d)	To get Like a	into un spy	expecte	ed troub	le
Q8.	To be (a) (c)	at the end of or To feel offend To have no re	ne's teth ed sources	ner s left		(b) (d)	To dra To thir	w mora ik deep	l attenti ly	on	
Q9-12 Q9.	. Choo (a)	se the correct Hindrance	ly spel ⁱ	t word: (b)	- Hinder	ance	(c)	Hindre	ence	(d)	Hinderence
Q10.	(a)	Perjery		(b)	Perjur	y	(c)	Purjur	y	(d)	Perjary
Q11.	(a)	Reminiscene		(b)	Remin	iscence	e (c)	Remin	icence	(d)	Remeniscence
Q12.	(a)	Omminous		(b)	Omine	eous	(c)	Ominc	ous	(d)	Omenous
Q13-1	6. Choc	ose the word v	vhich is	s nearly	oppos	site in n	neaning	g to the	given	word:-	
Q13.	Sporad (a)	dic Rare	(b)	Freque	ent	(c)	Sharp		(d)	Coordi	inated
Q14.	Exone (a)	rate Reject	(b)	Contra	ict	(c)	Accuse	e	(d)	Admit	
Q15.	Parsim (a)	ionious Generous	(b)	Selfish	1	(C)	Religio	ous	(d)	Heredi	itary
Q16.	Vindica (a)	ate Censure	(b)	Favou	r	(c)	Indicat	e	(d)	Eradic	ate

Q17-19. Read the following passage carefully and answer the questions given below it:-

Recently, a newspaper article mourned the total disappearance of the common house sparrow. This was a comment on the city's perceptible move towards edging out the flora and fauna of the city. In the rapid urbanization, multi-storied apartments grew and large scale felling of trees became necessary. Last week, however, seven pairs of these sparrows were spotted in a suburb. Possibly the greenery of this place has created a new habitat for these birds which like their proximity to human beings, and have made a comeback. A systematic development of trees and shrubs all over the city could woo the absentee house sparrow to our midst.

Q17. According to the passage, the birds have made a comeback to the suburb because they

- (a) have been hunted down by the village people
- (b) Love to be amidst human beings
- (c) get food only where human beings live
- (d) they have been deliberately brought back by biologists

Q18. In the passage the term "urbanisation" has been used to refer to

- (a) the destruction of the greenery in the city
- (b) construction of concrete structures on a large scale
- (c) a change over from the rural life to the city life
- (d) the movement of people from villages to cities
- Q19. The phrase "absentee house sparrow" refers to
 - (a) the sparrow that makes infrequent visits
 - (b) the sparrow that has forgotten its habitat
 - (c) the sparrow that has gone away from the urban areas
 - (d) the sparrow that has become extinct

Q20-25 Select the most appropriate word from the options against each number:-

Watermelons ...(20)... to India by the 4th century A.D. Sushruta, the great Indian physician,(21)...wrote Sushruta Samhit, mentions that watermelons were grown ...(22)... the banks of the river Indus.(23)....are also mentioned in ancient books. Sushruta calls it as Kalinda or Kalinga (hence Kalingad in Marathi). It was...(24)..to China in the 10th or 11th century and ...(25)... it is grown throughout the tropics.

Q20.	(a)	came	(b)	go	(c)	arrived	(d)	started
Q21.	(a)	did	(b)	when	(c)	certainly	(d)	who
Q22.	(a)	above	(b)	outside	(c)	from	(d)	along
Q23.	(a)	it	(b)	they	(c)	some	(d)	that
Q24.	(a)	took	(b)	gave	(c)	taken	(d)	take
Q25.	(a)	also	(b)	though	(c)	now	(d)	tomorrow

Q26-29. Which word or words explains the meaning of the following idioms:-

Q26.	Lay b (a) (c)	are Expose Destroy	(b) (d)	Take off all clothes Exploit
Q27.	A wol (a) (c)	f in sheep's clothing A hypocrite A coward	(b) (d)	A wolf in woolen clothes A proud man
Q28.	A blue (a) (c)	e stocking Stocking which is blue in colour An unreliable person	(b) (d) and l	A clean cheat a woman having literary tastes earning
Q29.	Yeom (a)	an's service lip-service	(b)	to serve like a slave

(c)

to play god father

(d) efficient or useful help

		3		
Q30-6	5. Cho	oose the most appropriate answer:	-	
Q30.	Whicł (a) (c)	n country will host the XXXI Olympic (Rio de Janeiro, Brazil Tokyo, Japan	Games (b) (d)	in 2016? Chicago, USA Doha, Qatar
Q31.	The b (a) (c)	ook, "A China Passage' was written l MJ Akbar Anees Jung	oy (b) (d)	Jagmohan John Kenneth Galbraith
Q32.	Whov (a) (c)	was the founder of Nanda dynasty? Bimbisara Ajatasatru	(b) (d)	Mahapadma Nanda Dhana Nanda
Q33.	Whicł (a) (c)	n of the following books is written by Mankind and Mother Earth The Future of Freedom	Arnold 7 (b) (d)	Foynbee? Tom Sawyer The Moon's Last Sigh
Q34.	The n follow (a) (c)	ational emblem, viz four lions standir ing:- Sarnath lions Khajurao	ng back (b) (d)	to back is an adaptation from which of the Gir lions Ajanta caves
Q35.	Who	was the person behind conversion of	East In	dia Company from a trading company into

- om a trading company into a regional power?
 - (a) Lord Warren Hastings Lord Clive (b) Lord Dalhousie (d) Lord Wellesley (c)

Who inscribed the name of Khalifa of Baghdad on his coins? Q36.

- Ala-ud-din Khilji Iltutmish (a) (b) Qutub-ud-in Aibak (d) Balban (c)
- Who among the following is not a recipient of the 'Bharatiya Jnanpith' Award? Q37.
 - Ashapurna Devi MF Hussain (a) (b)
 - (c) Raghupati Sahay (d) VK Gokak

Global 500 awards are given for outstanding achievement in which of the following fields? Q38.

- Population Control (b) Elimination of illiteracy (a) (d) Protection of environment (c) Campaigning against AIDS
- Who among the following Sultans of Delhi assumed the title, 'Sikandar-i-Sani? Q39.
 - Balban Ala-ud-din Khilji (a) (b)
 - Sikander Lodhi (c) Muhammad-bin-Tughlag (d)

Q40. UN General Assembly recently declared 21st June as International Youth Dav

International Literacy Day (b)

International Day of Yoga (c) (d) International Day of Peace

Q41. Pulitzer Prize is awarded for outstanding work in the field of

- Science and Technology **Environmental Studies** (a) (b) (c)
 - Literature and Journalism (d) International Understanding
- Q42. The presidency of the UN Security Council rotates among the Council Members
 - Every 6 months Every year (a) (b) (c)
 - Every 3 months Every month (d)
- Q43. The member countries of NAFTA are

(a)

- USA, Canada and Mexico (b) Canada and Mexico (a)
- USA and Canada (c) (d) Argentina and Brazil
- Q44. Who were the contemporaries of the Gupta Kings in the south?
 - Chola Rashtrakutas (a) (b) Satavahanas (d) Vakatkas (c)
- Q45. Sandeep Sejwal won the Bronze medal in 2014 Asian Games in which of the following events?
 - 200m backstroke (b) (a) (c)
 - 50m breaststroke (d)
- 200m freestyle 50m butterfly

Q46.	Manga (a)	alyan, Mars Orl Jan 2013	biter Mis (b)	ssion (MOM) w Oct 2012	as laun (c)	ched in Oct 2013	(d)	Nov 2013
Q47.	"Ruhr (a)	of India" knowi Uttar Pradesł	n for its n (b)	rich coal depos Jharkhand	sits is in (c)	the State of West Bengal	(d)	Bihar
Q48.	The In (a)	dian space pro 1961	ogramm (b)	e began in 1962	(c)	1965	(d)	1969
Q49.	'Bachp	oan Bachao Ar	ndolan (l	BBA)', an orgai	nisation	to protect the	rights of	f children was founded
	by (а) (с)	Amir Khan Om Prakash	Gurjar		(b) (d)	Kailash Satya Santa Sinha	rthi	
Q50.	Which	of the followin	g Subso	onic missiles, te	est fired	in October 201	I4 is co	nsidered India's answer
	(a) E	Brahmos Mk-2	(b)	Prahaar	(c) N	irbhay	(d)	Agni-V
Q51.	Who a	among the foll	owing v	won the World	Billiard	ls Championsh	nip helo	d in England in October
	(a) (c)	Peter Gilchris Saurav Kotha	st ari		(b) (d)	Pankaj Advar None of these	ni Ə	
Q52.	The su	um of ages of 4	l childre	n born at the ir	nterval c	of 2 years is 52.	. What i	s the age of the oldest
	(a)	10 years	(b)	12 years	(c)	14 years	(d)	16 years
Q53.	A certa and R	ain sum under s. 6050/- in 6 y	compou rears. W	Ind interest, co hat is the rate	mpound of intere	ded annually, a est?	mounts	to Rs. 5500/- in 5 years
054	(a) Rs 80	12 72 70 10 becomes Rs	(D) 956 in	3 vears at a ce	ertain ra	20% Ite of simple int	(u) erest li	the rate of interest is
QU-1.	increa (a)	sed by 4%, wh Rs 1020.80	at amou (b)	unt will Rs. 800 Rs 1025	becom (c)	es in 3 years? Rs 1052	(d)	Rs 1000
Q55.	A sum a furth (a)	of money lent er period of 5 y Rs 500	out at s years. T (b)	imple interest a he sum is Rs 600	amounts	s to Rs 720 afte Rs 700	er 2 yea (d)	rs and to Rs 1020 after Rs 750
Q56.	Prese	nt age of X and	d Y are i	n the ratio 7:5	respecti	vely. Four year	rs hence	e, the ratio of their ages
	will be (a)	come 11:9 res 1 year	pectivel (b)	y. What is the p 7 year	oresent (c)	age of Y? 5 year	(d)	None of these
Q57.	A can goes a	do a piece of v away. In how m	vork in 2 nany day	20 days and B i ys will A finish t	in 25 da the worl	ys. They work	togethe	er for 5 days and then B
058	(a) Two tr	iiuays ain A & B each	(U) 0.66 met	9 uays ters long run n	(C) arallel to	20 days	(U) the san	21 days
Q00.	speed (a)	s are 50 Kmph 28 Sec	and 30 (b)	Kmph respect 28.46 Sec	ively. In (c)	what time A w 53.46 Sec	ill comp (d)	pletely pass B. 23.76 Sec
Q59.	A train the ma	77.5 m in leng an walking in th	gth is ru	nning at the rat	e of 65 le train	Kmph. Find the @ 3 Kmph.	e time ta	aken by the train to pass
060	(a) Ram c	2.5 Sec $71/6$ Km	(D) Inch in st	4.5 Sec	(C)	0.5 Sec	(a) n an ho	8 Sec
Q00.	minute (a)	es to row to a p 3.5 Km	lace an (b)	d back, how fai 3 Km	r is the j (c)	place? 4.5 Km	(d)	5 Km
Q61.	A moto covers (a)	orboat with spe the distance i 4	ed 15 k n 4 hou (b)	۲۹۵ Kmph in still wa rs and 30 minu 5	ter goe: tes. The (c)	s 30 Km downs e speed of the s 6	stream a stream (d)	and comes back. It in Km/h is? 10
Q62.	Zinc a 28.8 k (a)	nd copper are g of zinc has b 58 Kg	melted een cor (b)	together in the sumed in it? 60 Kg	ratio 9: ⁻ (c)	11. What is the 64 Kg	weight (d)	of the melted mixture, if 70 Kg

Q63.	A sells goods	his goods 20% cheaper / dear	6 cheap er than	er than B and B.	20% de	arer than C. Ho	w mucł	n percentage is C's				
	(a)	33.33%	(b)	50%	(c)	45.85%	(d)	None of these				
Q64.	The av 1. Wha	erage of 6 obs at will be the 7 th	ervatior observ	ns is 12. If the ⁻ ation?	7 th obse	rvation is incluc	led, the	average is reduced by				
	(a) 4		(b)	5	(c)	6	(d)	7				
Q65.	If the incomes of Ram & Shyam are in the ratio of 3:4 and their expenditures in the ratio of 4:5, find the ratio of their savings, given that Shyam saves a third of his income. (a) 10:15 (b) 13:20 (c) 15:20 (d) 13:15											
Q66-70 mark.	0 In ead	In each of the following questions find out the alternative which will replace the question										
Q66.	Sadist (a) (c)	: Injury :: ?:? Opportunist : (Dentist : Teeth	Genero 1	sity	(b) (d)	Priest : Church Thief : Robber	ר יע					
Q67.	Lecher (a) (c)	ous : Carnal :: Virile : Feeble Impede : Begi	?:? n		(b) (d)	Diatribe : Abus Sunder : Link	Se					
Q68.	Cerebr (a) (c)	rum : Brain :: ?: Aorta : Hand Ventricle : Hea	? art		(b) (d)	Ligament : Blo Country : Univ	od erse					
Q69.	(c)Country FormeredMonument : Cenotaph :: ?:?(a)Orifice : Opening(b)Guide : Follower(c)Protect : Protocol(d)Sponsor : Cleave											
Q70.	Meado (a) (c)	w : Sheep :: ?: Stable : Horse Grass : Grass	? hopper		(b) (d)	Hay : Insect Pasture : Cattl	е					
074 7						<u>.</u>						

Q71-75. In each of the following questions, select a figure from amongst the four alternatives, which when placed in the blank space of figure (X) would complete the pattern.

Q71.



Q72.



Q73.





Q75.



Q 76-80. Each of these questions given below contains three elements. These elements may or may not have some inter-linkage. Each group of elements may fit into one of these diagrams at (a), (b), (c) or (d). You have to indicate the group of elements which correctly fits into the diagrams.

(d)

Q76. Which of the following diagrams indicates the best relation between Biology, Zoology and Physics?



Q77. Which of the following diagrams indicates the best relation between Stamp, Pen and Chalk?



Q78. Which of the following diagrams indicates the best relation between Singers, Athletes and Girls?



Q79. Which of the following diagrams indicates the best relation between Teachers, Women and Doctors?



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Q80. Which of the following diagrams indicates the best relation between Clothes, Flowers and White?



Q81-85. Each of the following questions consists of five figures marked 1,2,3,4 and 5 called the Problem Figures followed by four other figures marked a, b, c and d called the Answer Figures. Select a figure from amongst the Answer Figures which will continue the same series as established by the five Problem Figures.



Q86-90. Each of the following questions consists of two sets of figures. Figures 1, 2, 3 and 4 constitute the Problem Set while figures a, b, c and d constitute the Answer Set. There is a definite relationship between figures (1) and (2). Establish a similar relationship between figures (3) and (4) by selecting a suitable figure from the Answer set that would replace the question mark (?) in fig (4).

Q86. Q87. Q87.



Q91-95. In each problem, out of the four figures marked (a) (b) (c) and (d) three are similar in a certain manner. However, one figure is not like the other three. Choose the figure which is different from the rest.



Q96-100 In each of the following questions, four words have been given out of which three are alike in some manner, while the fourth one is different. Choose the word which is different from the rest.

Q96.	(a)	Mendicant	(b)	Ascetic	(c)	Pious	(d)	Hermit
Q97.	(a)	Bardoli	(b)	Bhadravati	(c)	Porbandar	(d)	Champaran
Q98.	(a)	Niger	(b)	Suez	(c)	Mississippi	(d)	Colorado
Q99.	(a)	Bang	(b)	Hiss	(c)	Whistle	(d)	Wink
Q100.	(a)	Gold	(b)	Silver	(c)	Bronze	(d)	Iron

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AFCAT Model Question Paper-I

1(d)	2(b)	3(d)	4(b)	5(a)	6(d)	7(c)	8(a)	9(d)	10(d)
11(c)	12(c)	13(b)	14(a)	15(b)	16(b)	17(c)	18(c)	19(d)	20(c)
21(c)	22(a)	23(c)	24(c)	25(c)	26(b)	27(a)	28(d)	29(a)	30(c)
31(b)	32(b)	33(d)	34(a)	35(d)	36(c)	37(a)	38(a)	39(a)	40(a)
41(a)	42(d)	43(b)	44(c)	45(c)	46(b)	47(a)	48(d)	49(b)	50(b)
51(b)	52(c)	53(d)	54(c)	55(c)	56(c)	57(d)	58(d)	59(c)	60(b)
61(c)	62(c)	63(a)	64(b)	65(a)	66(d)	67(d)	68(a)	69(c)	70(a)
71(d)	72(c)	73(c)	74(d)	75(c)	76(c)	77(c)	78(c)	79(d)	80(c)
81(d)	82(c)	83(a)	84(b)	85(d)	86(c)	87(c)	88(a)	89(d)	90(c)
91(c)	92(c)	93(a)	94(d)	95(c)	96(a)	97(b)	98(c)	99(c)	100(d)

AFCAT Model Question Paper-II

1(b)	2(a)	3(d)	4(a)	5(b)	6(a)	7(d)	8(c)	9(a)	10(d)
11(c)	12(b)	13(d)	14(c)	15(b)	16(c)	17(a)	18(b)	19(d)	20(d)
21(b)	22(c)	23(c)	24(c)	25(d)	26(c)	27(c)	28(a)	29(c)	30(b)
31(c)	32(c)	33(a)	34(b)	35(a)	36(c)	37(c)	38(c)	39(d)	40(d)
41(c)	42(b)	43(b)	44(c)	45(d)	46(c)	47(b)	48(b)	49(d)	50(a)
51(d)	52(c)	53(a)	54(a)	55(a)	56(a)	57(a)	58(d)	59(b)	60(c)
61(c)	62(b)	63(a)	64(d)	65(b)	66(d)	67(c)	68(d)	69(c)	70(c)
71(d)	72(c)	73(a)	74(d)	75(a)	76(b)	77(d)	78(d)	79(c)	80(a)
81(d)	82(c)	83(c)	84(c)	85(a)	86(c)	87(d)	88(c)	89(c)	90(c)
91(c)	92(d)	93(a)	94(b)	95(c)	96(a)	97(d)	98(c)	99(c)	100(c)

AFCAT Model Question Paper-III

1(d)	2(c)	3(b)	4(a)	5(d)	6(d)	7(b)	8(c)	9(c)	10(c)
11(c)	12(d)	13(a)	14(a)	15(a)	16(b)	17(c)	18(d)	19(c)	20(c)
21(d)	22(c)	23(a)	24(b)	25(b)	26(d)	27(d)	28(a)	29(a)	30(a)
31(b)	32(d)	33(c)	34(b)	35(a)	36(d)	37(d)	38(a)	39(b)	40(b)
41(c)	42(a)	43(c)	44(b)	45(b)	46(d)	47(b)	48(c)	49(b)	50(a)
51(d)	52(a)	53(d)	54(b)	55(b)	56(b)	57(c)	58(a)	59(b)	60(b)
61(d)	62(d)	63(c)	64(b)	65(c)	66(b)	67(c)	68(c)	69(d)	70(b)
71(c)	72(a)	73(d)	74(d)	75(b)	76(b)	77(d)	78(c)	79(c)	80(b)
81(a)	82(c)	83(c)	84(d)	85(d)	86(b)	87(c)	88(b)	89(c)	90(d)
91(b)	92(d)	93(d)	94(a)	95(c)	96(a)	97(c)	98(d)	99(b)	100(d)

AFCAT Model Question Paper-IV

1(d)	2(a)	3(c)	4(c)	5(c)	6(d)	7(d)	8(c)	9(a)	10(b)
11(b)	12(c)	13(b)	14(c)	15(a)	16(a)	17(b)	18(d)	19(c)	20(a)
21(d)	22(d)	23(b)	24(c)	25(c)	26(a)	27(a)	28(d)	29(d)	30(a)
31(d)	32(b)	33(a)	34(a)	35(a)	36(b)	37(b)	38(d)	39(b)	40(c)
41(c)	42(d)	43(a)	44(d)	45(c)	46(d)	47(b)	48(b)	49(b)	50(c)
51(b)	52(d)	53(d)	54(c)	55(b)	56(c)	57(a)	58(d)	59(b)	60(b)
61(b)	62(c)	63(a)	64(b)	65(b)	66(d)	67(b)	68(c)	69(a)	70(d)
71(d)	72(d)	73(a)	74(c)	75(c)	76(b)	77(c)	78(c)	79(d)	80(b)
81(c)	82(d)	83(b)	84(c)	85(b)	86(a)	87(c)	88(b)	89(d)	90(d)
91(b)	92(d)	93(a)	94(c)	95(d)	96(c)	97(b)	98(b)	99(d)	100(c)
EKT Model Question Paper (Computer Science)-I

<u>Instru</u> 1. 2. 3. 4.	<u>ctions</u> Total One n No ma Do no	for Candidate No. of Questic nark will be de ark will be ded of write or mak	<u>s</u> ons 50. educted lucted f re any r	Each Q I for eve for un-a mark or	Question ery wro attempt n Quest	n is of ong ans ed que ion Pa	three i swer. stions per.	<u>Time Al</u> marks.	llotted:	<u>45Minutes</u>	
Q1.	If the o at the	centre of a circl origin is	le is (-6	,8) and	it passe	es throu	igh the	origin, tł	nen equ	ation to its tangent	
	(a)	2y=x	(b)	4y=3x		(c)	3y=4	х	(d)	3x+4y=0	
Q2.	The lid of 2:1 amour	quid is flowing a , if the ratio of nts of the liquid	separat f the ve flowing	tely thro elocities per see	ugh ead of flow c throug	ch of tw / in the h the p	vo pipe two p vipe wil	s whose pipes by I be	diamet 1:2, the	ers are in the ratio en the ratio of the	
	(a)	2:1	(b)	1:1		(c)	4:1		(d)	1:8	
Q3.	If $f(x) = x + x^2 - 8 $ then the derivative of $f(x)$ at $x=3$ is										
	(a)	6	(b)	7		(c)	8		(d)	-8	
Q4.	Given	P(A) = 1/4, P(B)	3)=1/3 a	and P(A	UB)= 1/	/2. Valu	e of P	(A/B) is			
	(a)	1/4	(b)	1/3		(c)	1/6		(d)	1/7	
Q5.	The a	ngle between ty	wo vect	ors a =	i+2j-k a	and b=2	2i+j+k	is			
	(a)	30 deg	(b)	45 deg	9	(c)	60 de	eg	(d)	90 deg	
Q6.	Newto	on is unit of forc	e. It is t	the unit	in						
	(a)	MKS system			(b)	CGS s	system				
- -	(c)	FPS system			(d)	None	of thes	e			
Q7.	A Fara	ad is defined as	6								
	(a)	stat coulomb	/volt		(b)	coulor	nb/volt	t			
	(c)	coulomb x vo	lt		(d)	stat coulomb x volt					
Q8.	Perme	eance of a mag	netic ci	rcuit cor	respon	ds to th	e follo	wing qua	ntity in o	electrical circuit	
	(a)	conductivity	(b)	resistiv	vity	(c)	cond	uctance	(d)	resistance	
Q9.	Hydro	meter is an ins	trument	t for mea	asuring						
	(a)	relative humic	dity		(b)	pressure of water					
	(c)	volume of liqu	uids		(d)	specif	ic grav	ity			
Q10.	Radio	activity is a pro	perty of	f							
	(a)	atomic nuclei			(b)	excite	d elect	ron			
	(c)	gamma rays			(d)	ultravi	olet lig	ht			
Q11.	lf a pla	ane is parallel t	o the pl	ane of p	projectio	on, it ap	pears				
	(a)	true size			(b)	as a li	ne or e	edge			
	(c)	foreshortened	ł		(d)	as an	obliqu	e surface	;		
Q12.	How is	s a J-K Flip Flo	p made	to togg	le						
	(a)	J=0, K=0	(b)	J=1, ł	<= 0	(c)	J=0,	K=1	(d)	J=1, K=1	
Q13.	No. of	flip-flops used	in deca	ade cour	nter						
	(a)	3	(b)	2		(c)	4	(d)	None	of these	

				-							
Q14.	The d	ecimal equivale	ent of th	ne hexadecima	al numbe	er E5 is					
	(a)	279	(b)	229	(c)	427	(d)	3000			
Q15.	Which	n part of the cor	nputer	is used for cal	culating	and comparin	g?				
	(a)	Disk unit	(b)	Control unit	(c)	ALU	(d)	Modem			
Q16.	A CPI	J's processing	power i	is measured in							
	(a)	IPS	(b)	CIPS	(c)	MIPS	(d)	nano-seconds			
Q17.	Which	n computer mer	nory is	volatile?							
	(a)	RAM	(b)	ROM	(c)	EPROM	(d)	PROM			
Q18.	The c	omputer code f	or the i	nterchange of	informat	tion between t	erminals	s is			
	(a)	ASCII	(b)	BCD	(c)	EBCDIC	(d)	All of these			
Q19.	Which of the following is not a sequential storage device?										
	(a)	Magnetic disk	(b)	Magnetic tap	be (c)	Paper tape	(d)	All of these			
Q20.	The d	ata recording a	rea bet	ween the blan	k gaps o	on magnetic ta	pe is ca	lled a/an:			
	(a)	record	(b)	block	(c)	field	(d)	database			
Q21.	On a	systems flowch	hart, the	e online manu	al keepi	ng of input da	ta is ide	entified by using the			
	(a)	online storage	e symb	ol	(b)	online keybo	oard syn	nbol			
	(c)	keeping operation	ation sy	/mbols	(d)	manual oper	ration sy	/mbols			
Q22.	An ex	ample of a hier	archica	I data structure	e is						
	(a)	array	(b)	link list	(c)	tree	(d)	ring			
Q23.	Which into o	n of the followir ne?	ng syste	em software de	oes the	job of merging	g the re	cords from two files			
	(a)	security softw	/are		(b)	utility progra	m				
	(c)	networking so	oftware		(d)	documentati	on syste	em			
Q24.	Virtua	I Memory									
	(a) is a method of memory allocation by which the program is subdivided into equal portions, or pages and core is subdivided into equal portions or blocks										
	(b) of a c	consists of th	ose ad	dresses that m	ay be g	enerated by a	process	sor during execution			
	(c)	is a method o	of alloca	ating processor	[.] time						
	(d)	allows multipl	e progr	ams to reside	in sepai	rate areas of c	ore at th	ne time			
Q25.	Which	n is a permaner	nt datab	base in the gen	eral mo	del of compile	r?				
	(a)	literal Table			(b)	identifier Tal	ble				
	(c)	terminal Table	е		(d)	source code					
Q26.	Opera	ating system fur	nctions	may include							
	(a)	input/output o	control		(b)	virtual storage					
	(c)	multi-program	nming		(d)	all of these					
Q27.	Movin	g process from	n main r	memory to disk	is calle	d					
	(a)	scheduling	(b)	caching	(c)	swapping	(d)	spooling			

- Q28. In which addressing mode the contents of a register specified in the instruction are first decremented, and these contents are used as the effective address of the operands? index addressing indirect addressing (a) (b) (c) auto increment (d) auto decrement Q29. In order to allow only one process to enter its critical section, binary semaphore are initialized to 0 2 3 (a) (b) 1 (c) (d) The outstanding Invoice file should be stared on a Pardon Access Storage Device if Q30. invoice data entry is on-line (a) payment recording is done in a batch rode (b) inquiries concerning payable are to be answered on-line (c) last record points to the first record (d) Q31 In SQL, which command(s) is/are used to enable/disable a database trigger? ALTER TRIGGER (b) ALTER DATABASE (a) ALTER TABLE (d) MODIFY TRIGGER (c) Q32. The modify operation is likely to be done after Delete (b) Look-up Insert (d) all of these (a) (c) Which of the following is not a logical data-base structure? Q33. relational (d) chain (a) tree (b) (c) network Q34. Which of the following tools is not used in modelling the new system? (a) decision tables (b) data dictionary (c) data-flow diagrams (d) all of these Q35. Difference between Decision-Tables and Decision Tree is (are) : (a) value to end user (b) form of representation one shows the logic while other shows the process (c) (d) all of the above Q36. The reservation system of Indian railways is an example of transaction processing system (a) (b) interactive decision support system management controls system (c) (d) expert system Q37. The network layer, in reference to the OSI model, provide data link procedures that provide for the exchange of data via frames that can be (a) sent and received the interface between the X.25 network and packet mode device (b) the virtual circuit interface to packet-switched service (c)
 - (d) all of the above

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Q38.	Which of the following is an important characteristic of LAN?											
	(a)	application in	depend	ent interfaces								
	(b)	unlimited expa	ansion									
	(c)	low cost acce	ss for lo	w bandwidth	channel	s						
	(d)	parallel transr	mission									
Q39.	Which from o	of the following the machine to	ng TCP	/IP protocol is r?	s used f	or trans	sferring	electroi	nic mai	l messages		
	(a)	FTP	(b)	SNMP	(c)	SMTF)	(d)	RPC			
Q40.	The sl	owest transmis	sion sp	eeds are thos	e of							
	(a)	a) twisted-pair wire (b) coaxial cable										
	(c)) fiber-optic cable (d) microwaves										
Q41.	How many digits of the Network User Address are known as the DNIC (Da Identification Code)?								ata Network			
	(a)	first three	(b)	first four	(c)	first fiv	/e	(d)	first se	even		
Q42.	The m	ost flexibility in	how de	evices are wire	ed togetl	ner is pr	ovided b	су				
	(a)	bus networks	(b)	ring network	s (c)	star n	etworks	(d) T-	switche	ed networks		
Q43.	An FM signal contains intelligence in											
	(a)	it's frequency	variatio	ns		(b)	it's am	plitude	variatio	ons		
	(c)	both amplitud	e and fr	equency varia	ations	(d)	none o	of these	;			
Q44.	In PCI	V system										
	(a)	a large bandv	vidth is I	required								
	(b)	the biggest di	sadvant	tage is its inco	mpatibil	ity with	TDM					
	(c)	companding i	s used t	to overcome c	quantisin	g noise						
	(d)	none of the al	bove									
Q45.	The al	I-day efficiency	of a tra	ansformer dep	ends on							
	(a)	its copper los	S			(b)	its iron	loss				
	(c)	both (a) & (b)				(d)	None	of these	Э			
Q46.	Slip rir	ngs for inductio	n motor	are made of								
	(a)	copper	(b)	aluminium	(c)	carbo	n	(d)	phosp	hor bronze		
Q47.	One o	f the characteri	istic of s	single phase n	notor is t	hat it						
	(a)	is self-starting	9			(b)	is not :	self-sta	rting			
	(c)	requires only	one win	nding		(d)	can ro	tate in o	one dire	ection only		
Q48.	If the input to a differentiating ckt is saw -tooth wave then output will bewave								vave			
	(a)	Square	(b)	Rectangular		(c)	Triang	ular	(d)	Saw-tooth		
Q49.	Which	gate acts as u	niversa	l gate?								
	(a)	AND	(b)	NAND		(c)	OR		(d)	EX-OR		
Q50.	A 32 b	it microproces	sor has	word length e	qual to							
	(a)	1 byte	(b)	2 byte		(c)	4 byte		(d)	8 byte		

EKT Model Question Paper (Computer Science)-II

Instru	ctions	for Candidate	s					<u>Time A</u>	llotted:	45 Minutes	
1.	Total	No. of Questi	ons 50.	Each Qu	lestior	n is of t	three	marks.			
2.	One n	hark will be do	educted	d for ever	ry wro	ng ans	wer.				
3. 4.	Do no	t write or mal	ke any i	mark on (Questi	ion Pap	per.)			
Q1.	lf a pla	ane is parallel	to the pl	ane of pr	ojectio	n, it ap	pears				
	(a)	true size	•		(b)	as a lii	ne or e	edge			
	(c)	foreshortene	d		(d)	as an	obliqu	e surface)		
Q2.	How is	s a J-K Flip Flo	p made	to toggle)						
	(a)	J=0, K=0	(b)	J=1, K=	=0	(c)	J=0,	K=1	(d)	J=1, K=1	
Q3.	No. of	flip-flops used	l in deca	ade count	er						
	(a)	3	(b)	2		(c)	4		(d)	None of these	
Q4.	The de	The decimal equivalent of the hexadecimal number E5 is									
	(a)	279	(b)	229		(c)	427		(d)	3000	
Q5.	Which	part of the co	mputer	is used fo	or calcu	ulating a	and co	mparing	?		
	(a)	Disk unit	(b)	Control	unit	(c)	ALU		(d)	Modem	
Q6.	Differe	ence between	Decisio	n-Tables	and De	ecision	Tree i	s (are) :			
	(a)	value to end	user								
	(b)	form of repre	sentatio	n							
	(c)	one shows th	e logic	while othe	er shov	ws the p	proces	s			
	(d)	all of the abo	ve								
Q7.	The re	eservation syst	em of Ir	ndian railv	vays is	an exa	ample	of			
	(a)	(a) transaction processing system									
	(b)	interactive de	ecision s	support sy	/stem						
	(c)	management	control	s system							
	(d)	expert syster	n								
Q8.	The ne	etwork layer, ir	n referer	nce to the	e OSI n	nodel, p	orovide	Э			
	(a)	data link pro sent and rece	cedures eived	that pro	vide fo	or the e	exchar	ige of da	ta via f	rames that can be	
	(b)	the interface	betwee	n the X.2	5 netw	ork and	l pack	et mode	device		
	(c)	the virtual cir	cuit inte	rface to p	acket-	switche	ed serv	/ice			
	(d)	all of the abo	ve								
Q9.	Which	of the followin	ig is an	important	t chara	cteristic	c of LA	N?			
	(a)	application in	depend	ent interfa	aces						
	(b)	unlimited exp	ansion								
	(C)	low cost acce	ess for lo	ow bandw	vidth cł	hannels	6				
	(d)	parallel trans	mission								

Q10.	Which of the following TCP/IP protocol is used for transferring electronic mail messages from one machine to another?									
	(a)	FTP	(b)	SNMP	(c)	SMTP	(d)	RPC		
Q11.	The sl	owest transmis	sion sp	eeds are those	of					
	(a)	twisted-pair w	vire		(b)	coaxial cable				
	(c)	fiber-optic cat	ble		(d)	microwaves				
Q12.	A CPL	J's processing	power is	measured in						
	(a)	IPS	(b)	CIPS	(c)	MIPS	(d)	nano-seconds		
Q13.	Which	computer men	nory is v	volatile?						
	(a)	RAM	(b)	ROM	(c)	(c) EPROM (d) PROM				
Q14.	The co	omputer code f	or the in	terchange of ir	formati	on between ter	minals	is		
	(a)	ASCII	(b)	BCD	(c)	EBCDIC	(d)	All of these		
Q15.	5. Which of the following is not a sequential storage device?									
	(a)	Magnetic disk	(b) Ma	gnetic tape	(c)	Paper tape	(d)	All of these		
Q16.	The da	ata recording a	rea betv	veen the blank	gaps o	n magnetic tape	e is call	ed a/an:		
	(a)	record	(b)	block	(c)	field	(d)	database		
Q17.	On a : (a)	a systems flowchart, the online manual keeping of input data is identified by using the online storage symbol (b) online keyboard symbol								
	(c)	keeping opera	ation syı	nbols	(d)	manual opera	tion syn	nbols		
Q18.	An exa	ample of a hier	archical	data structure	is					
	(a)	array	(b)	link list	(c)	tree	(d)	ring		
Q19.	Which into or	of the followin	g syste	m software doe	es the j	ob of merging	the rec	ords from two files		
	(a)	security softw	are		(b)	b) utility program				
	(c)	networking so	ftware		(d)	documentation	n syster	m		
Q20.	Virtua	I Memory								
	(a) portioi	is a method ns, or pages an	of mem Id core i	ory allocation s subdivided in	by whic to equa	ch the program al portions or blo	is sub ocks	divided into equal		
	(b) of a co	consists of the omputation	ose add	resses that ma	iy be ge	enerated by a p	rocesso	or during execution		
	(c)	is a method o	f allocat	ing processor t	ime					
	(d)	allows multipl	e progra	ams to reside ir	n separa	ate areas of cor	e at the	e time		
Q21.	Which	is a permanen	it databa	ase in the gene	ral mod	lel of compiler?				
	(a)	literal Table			(b)	Identifier Table	е			
	(c)	terminal Table	Э		(d)	source code				
Q22.	Opera	ting system fur	nctions r	nay include						
	(a) input/output control (b) virtual storage									
	(c)	multi-program	ming		(d)	All of these				
Q23.	Movin	g process from	main m	emory to disk i	is callec	ł				
	(a)	scheduling	(b)	caching	(c)	swapping	(d)	spooling		

Q24.	24. In which addressing mode the contents of a register specified in the instruction are first decremented, and these contents are used as the effective address of the operands?											
	(a)	index addre	essing			(b)		indirec	t addres	ssing		
	(c)	auto increm	ent			(d)		auto de	ecreme	nt		
Q25.	In orc initializ	ler to allow zed to	only on	e proce	ss to e	enter	its	critical	sectior	i, binar <u>y</u>	y semaphore	are
	(a)	0	(b)	1		(c)		2		(d)	3	
Q26.	The o	utstanding In	voice file	should	be star	ed on	аF	Pardon	Access	Storage	e Device if	
	(a)	invoice data	a entry is	on-line								
	(b)	payment re	cording i	s done i	n a bat	ch rod	le					
	(c) inquiries concerning payable are to be answered on-line											
	(d) last record points to the first record											
Q27.	In SQL, which command(s) is/are used to enable/disable a database trigger?											
	(a)	ALTER TRI	GGER		(b)	ALT	ΈF	R DATA	BASE			
	(c)	(c) ALTER TABLE (d) MODIFY TRIGGER										
Q28.	The modify operation is likely to be done after											
	(a)	Delete	(b)	Look-	up	(c)		Insert		(d)	all of these	
Q29.	Which	of the follow	ing is no	t a logic	al data	-base	stru	ucture?				
	(a)	tree	(b)	relatio	onal	(c)		networ	ĸ	(d)	chain	
Q30.	Which	of the follow	ing tools	is not u	sed in I	model	ling	g the ne	w syste	m?		
	(a)	decision tak	oles		(b)	data	a di	ictionary	/			
	(c)	data-flow di	agrams		(d)	all c	of th	nese				
Q31.	How 1 Identif	many digits o	of the N)?	etwork	User A	ddres	s a	are kno	wn as	the DNI	IC (Data Net	work
	(a)	first three	(b)	first fo	our	(c)		first fiv	е	(d)	first seven	
Q32.	The m	ost flexibility	in how d	evices a	are wire	ed toge	eth	er is pro	ovided b	у		
	(a)	bus networl	ks (b) rir	ng netwo	orks	(c)	sta	ır netwo	orks	(d) T-s	witched netw	orks
Q33.	An FM	1 signal conta	ains intell	igence i	n							
	(a)	it's frequence	cy variati	ons				(b)	it's am	olitude v	variations	
	(c)	both amplite	ude and	frequen	cy varia	tions		(d)	none o	f these		
Q34.	In PC	M system										
	(a)	a large ban	dwidth is	require	d							
	(b)	the biggest	disadvar	ntage is	its inco	mpatil	bilit	ty with T	ГDМ			
	(c)	companding	g is used	to over	come q	uantis	sing	g noise				
	(d)	none of the	above									
Q35.	The a	ll-day efficien	cy of a ti	ansform	ner dep	ends o	on					
	(a)	its copper lo	DSS					(b) its iron loss				
	(c) both (a) & (b)							(d) None of these				
Q36.	Slip rii	ngs for induct	tion moto	or are m	ade of							
	(a)	copper (b)	alumi	nium	(c)	cart	oon	1	(d)	phosph	nor bronze	

Q37.	One of the characteristic of single phase motor is that it												
	(a)	is self-starting	g			((b)	is not self-s	tarting				
	(c)	requires only	one wi	nding		((d)	can rotate i	n one di	rection only			
Q38.	If the	input to a diffe	rentiati	ng ckt is	s saw -	tooth wave	then	output will be)	wave			
	(a)	Square	(b)	Recta	angular	((c)	Triangular	(d)	Saw-tooth			
Q39.	Whic	h gate acts as ι	universa	al gate?									
	(a)	AND	(b)	NANI	D	((c)	OR	(d)	EX-OR			
Q40.	A 32	bit microproces	sor has	s word le	ength e	equal to							
	(a)	1 byte	(b)	2 byte	e	((c)	4 byte	(d)	8 byte			
Q41.	If the at the	If the centre of a circle is (-6,8) and it passes through the origin, then equation to its tangent at the origin is											
	(a)	2y=x	(b)	4y=3x	ĸ	((c)	3y=4x	(d)	3x+4y=0			
Q42.	The I of 2: amou	iquid is flowing 1, if the ratio o ints of the liquic	separa f the v I flowin	tely thro elocities g per se	ough ea s of flo ec throu	ach of two w in the tw ugh the pipe	pipes wo pi e will	s whose diam ipes by 1:2, be	eters a then the	re in the ratio e ratio of the			
	(a)	2:1	(b)	1:1		((c)	4:1	(d)	1:8			
Q43.	If $f($	If $f(x) = x + x^2 - 8 $ then the derivative of $f(x)$ at $x=3$ is											
- · · ·	(a)	6	(b)	7		((c)	8	(d)	-8			
Q44.	Giver	n P(A) = 1/4, P(B)=1/3	and P(A	AUB)=	1/2. Value	of P(A/B) is					
	(a)	1/4	(b)	1/3		((c)	1/6	(d)	1/7			
Q45.	Perm	eance of a mag	netic c	ircuit co	orrespo	nds to the f	follow	ing quantity i	n electr	ical circuit			
	(a)	conductivity	(b)	resist	ivity	((c) co	onductance	(d)	resistance			
Q46.	Hydro	ometer is an ins	trumer	nt for me	easuring	g							
	(a)	relative humi	dity		(b)	pressure	e of w	/ater					
	(c)	volume of liqu	uids		(d)	specific	gravi	ty					
Q47.	Radio	pactivity is a pro	perty c	of									
	(a)	atomic nuclei			(b)	excited e	electr	on					
	(c)	gamma rays			(d)	ultraviole	et ligł	nt					
Q48.	The a	angle between t	wo vec	tors a =	= i+2j-k	and b=2i+	j+k i	S					
	(a)	30 deg	(b)	45 de	g	((c)	60 deg	(d)	90 deg			
Q49.	Newt	on is unit of for	ce. It is	the unit	in								
	(a)	MKS system			(b)	CGS sys	stem						
	(c)	FPS system			(d)	None of	thes	е					
Q50.	A Far	ad is defined a	S										
	(a)	stat coulomb	/volt		(b)	coulomb	o/volt						
	(c)	coulomb x vo	l t		(d)	stat coul	lomh	x volt					

(c) coulomb x volt (d) stat coulomb x volt

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EKT Model Question Paper (Electrical & Electronics)-I

Instru	ictions	s for Candida	tes			Time	e Allott	ted: 45 Minutes			
1. 2. 3. 4.	Total One r No m Do no	Total No. of Questions 50. Each Question is of three marks. One mark will be deducted for every wrong answer. No mark will be deducted for un-attempted questions. Do not write on the Question Paper or make any mark on it.									
Q1.	lf x=a (a)	(cos t + t sin t cos t), y=a(s (b)	sin t – t cos t). sin t	The v (c)	alue of $\frac{dy}{dx}$ is tan t	; (d)	sec ² t			
Q2.	The a 9000 (a)	area of three faces of a cuboid are in the ratio 2:3:4 and its volume is cm^3 . The length of the shortest edge is $15 cm$ (b) $30 cm$ (c) $20 cm$ (d) $60 cm$									
Q3.	$\int \frac{dx}{x \log x}$	is equal to	(2)		(0)	20 011	(4)				
	(a)	log x+x+c	(b)	log(logx)+c	(c)	xlogx+c	(d)	$\frac{\log x}{x}$ +C			
Q4.	 Tickets numbered 1 to 20 are mixed up and then a ticket is drawn at random. What is the probability that the ticket drawn has a number which is a multiple of 3 or 5? 										
	(a)	8/2	(b)	9/20	(c)	8/15	(d)	2/20			
Q5.	The p	he projection of a vector on another vector is									
Q6.	(a) (c) In MK	Scalar neither vecto S system, we	or nor s measu	calar ıre	(b) (d)	Vector either scala	ar or ve	ctor			
07	(a) (c)	mass in kilog time in seco	gram nd	waan two cha	(b) (d)	distance in all of these	distance in meter all of these				
Q7.	them	the separation	JII Delv		iges is		umes,	the force between			
Q8.	(a) (c) When	increases fo increases size a conductor	ur time: kteen ti cuts m	s mes nagnetic flux,	(b) (d) an em	decreases decreases of is induced	four tim sixteen in the	nes times conductor. This is			
	knowr	n as			<i>4</i>						
	(a) (c)	Joule's law Coulomb's la	aw		(b) (d)	Faraday's l Ampere's la	aw aw				
Q9.	X-ray	s are used for	the stu	udy of crystal	structu	ire because					
	 (a) X-rays are completely absorbed by the crystal (b) the wavelength of X-ray is of the same order of magnitude in the inter-atomic spacing in crystals (c) the wavelength of X-rays is very small in comparison with the inter-atomic spacing in crystals 										

(d) the crystals are completely transparent to X-rays

Q10.	A rad	lioactive was its	e isoto origina	pe has al weig	s a half-l ht 40 day	ife of /s ear	10 lier	day	s. If to	day th	nere a	are	125 g ol	f it left,
	(a)	600 g		(b)	1000 g		(c)		1250 g)	(d)		2000 g	
Q11.	Angle projec	es projection ar	ect true e ed	e size	only who	en th	e pl	ane	conta Perpe	ining	the a	ang	le and pl Parallel	ane of
040		in a m	,u	(0)	Aujuoc		(0)		i cipci	Taloal	u (u)		i aranci	
Q12.	l esia (a) (c)	magn magn	etic flu etic po	x dens tential	ity		(b) (d)		electrio electrio	c flux o c pote	densi ntial	ty		
Q13.	Admit (a)	ttance i susce	s recip ptance	rocal c e (b) i	of mpedanc	ce	(c)	rea	actance)	(d)		conducta	nce
Q14.	(a)	RC fil	s an ac ter	tive filt (b) n	er otch filte	r	(c)	But	terwort	h filte:	. (d)	Ł	and pass	s filter
Q15.	For tra (a) (c)	ansmis Balun doubl	sion lir e stub	ne load	l matchin	g ove	r a r (b) (d)	ang	je of fre broadt single	equen band d stub	cies, lirecti	it is iona	s best to ι al coupler	use a
Q16.	Emitter follower is used for(a) reducing the gain(b) increasing the distortion(c) impedance matching(d) none of these													
Q17.	Binar (a)	y equiv (1110	alent c 1) ₂	of (45) ₁ (b)	₀ is (11110)2	(c)		(10110)1) ₂	(d)	(110101)	2
Q18.	In Co (a)	mputer 1000	memo	ory size (b)	e K indica 1024	ites K	ilo, v (c)	whic	ch is eo 100	qual to	(d)	10000	
Q19.	An as (a) nc	stable m stable	nultivib state	rator h (b) on	as e stable s	state	(c)	thre	e stab	le stat	es (d	l) tv	vo stable	states
Q20.	An ide (a) in (b) ve (c) lo (d) in	eal Op ifinite in ery low ow inpu ofinite i	Amp h iput an input a it impe nput in	as Id outp and ou dance npedar	ut imped tput impe and very nce and z	ance edanc high cero o	e outp utpu	out i ut im	mpeda npedan	ance				
Q21.	An ins (a) (c)	structio data t logica	n used ransfe I instru	l to set r instru ıction	the carry ction	/ flag	in a (b) (d)	con	nputer arithm progra	can be etic in: m con	e clas struct itrol in	ssif tior nsti	ied as a 1 ruction	
Q22.	An FE (a) (c)	ET is a bipola non s	ır semi emicor	conduo nductor	ctor devic device	ce	(b) (d)		unipola both (a	ar serr a) and	nicon (c)	duc	ctor device	Ð
Q23.	For G (a) S	iunn dia Silicon	odes, s (b) (emico Germai	nductor r nium	nateri (c)	al p Ga	refe alliur	rred is m Arse	nide	(d)	all	l of these	
Q24.	In a J	FET dr	ain cui	rent is	maximu	m wh	en V	′ _{GS} i	S					
	(a) z	ero	(b)	nega	tive	(c)	pos	sitiv	е		(d)	ec	qual to Vp)
	-		-	-										

- Q25. The output of Laser is
 - (a) Infrared (b) polarised (c) narrow beam (d) coherent
- Q26. As compared to a closed loop system an open loop system is
 - more stable as well as more accurate (a)
 - (b) less stable as well as less accurate
 - (c) more stable but less accurate
 - (d) less stable but more accurate
- Q27. Transfer function of a system is used to calculate
 - (a) the steady state gain
- (b) the time constant
- (C) the order of the system (d) the output for a given input
- Q28. In a closed loop control system
 - control action depends upon the output and also on the input command (a)
 - output signal is fed back to be compared with the reference signal (b)
 - the accuracy is better than in the open loop system (c)
 - all of the above (d)
- Q29. The difference of the reference input and the actual output signal is called (a) error signal (b) controlling signal (c) actuating signal (d) transfer function
- Q30. If the transfer function of a system is $\frac{1}{T_{S+1}}$, the steady state error to unit step input is (a) T (b) zero (c) infinite (d) none of these
- Q31. In a PID controller, the values of proportional, integral and derivative are dependent on
 - (a) future, past and present errors respectively
 - present, past and future errors respectively (b)
 - (C) past, present and future errors respectively
 - present, future and past errors respectively (d)
- Q32. The inverse Laplace transform of $\frac{2}{s+1}$ is (a) 2(t+1) (b) 2e^{-t} 2(t+1) (c) $2e^{t}$ (a) (b) (d)
- Q33. The signal is extended from 96KHz to 100KHz, so the minimum sampling frequency required is
 - (a) 8KHz (b) 200KHz (c) 4KHz (d) 100KHz

(b)

(b)

- Q34. A differentiation circuit has a
 - very high time constant (b) (a)
 - (d) (c) infinite time constant
- Q35. Ideally Voltage Standing Wave Ratio (VSWR) should be
 - as large as possible (a)
 - (c) as close to unity as possible (d)
- Q36. Following is/are a property/properties of quantization
 - it is an nonlinear process (a)
 - it maps a larger set of input (d) all of these (c) values to a smaller set

zero time constant

infinity

- very low time constant

as small as possible

it is an irreversible process

e^{-2t}

Q37.	Most commonly used filter in SSB generation are (a) mechanical filters (b) RC filters (c) LC filters (d) low pass filters
Q38.	If the antenna diameter in a radar system is increased by a factor of 4, the maximum range will be increased by a factor of (a) 2 (b) 4 (c) 8 (d) 16
Q39.	Following type of multiplexing cannot be used for analog signalling(a)FDM(b)TDM(c)CDM(d)None of these
Q40.	In TDM systems, channel separation is done with the use of (a) AND gates (b) band-pass filters (c) differentiator circuit (d) integrator circuit
Q41.	 Data-link layer of the OSI model specifies (a) data link procedures that provide for the exchange of data via frames that can be sent and received (b) the interface between the X.25 network and packet mode device (c) the virtual circuit interface to packet-switched service (d) all of the above
Q42.	FDDI is a (a) ring network (b) star network (c) mesh network (d) bus based network
Q43.	Which of the following TCP/IP protocol allows an application program on one machine to send a datagram to an application program on another machine? (a) UDP (b) VMTP (c) X.25 (d) SMTP
Q44.	 The main difference between synchronous and asynchronous transmission is that (a) the clocking is derived from the data in synchronous transmission (b) the clocking is mixed with the data in asynchronous transmission (c) the pulse height is different (d) the bandwidth required is different
Q45.	 Transducer is a device which (a) converts one form of power in to the other (b) is similar to transformer (c) converts one form of energy in to other (d) helps in measuring electricity
Q46.	Principle of hysteresis is not used in (a) electrical water geyser (b) electrical motor (c) multi-vibrators (d) Schmitt trigger
Q47.	Which of the following motors would not be suitable for use as servomotors?(a) AC induction motor(b) brushless AC motor(c) stepper motor(d) permanent magnet DC motor
Q48.	The stator of an induction motor is made of (a) carbon (b) wood (c) copper stampings (d) silicon steel laminators
Q49.	An ideal DC generator is one that has voltage regulation (a) low (b) high (c) zero (d) positive
Q50.	Commutator is used in (a) DC generator (b) AC generator (c) invertors (d) convertors

EKT Model Question Paper (Electrical & Electronics)-II

Instructions for Candidates

Time Allotted: 45 Minutes

- 1. Total No. of Questions 50. Each Question is of three marks.
- 2. One mark will be deducted for every wrong answer.
- 3. No mark will be deducted for un-attempted questions.
- 4. Do not write on the Question Paper or make any mark on it.
- Q1. When a conductor cuts magnetic flux, an emf is induced in the conductor. This is known as
 - (a) Joule's law (b) Faraday's law
 - (c) Coulomb's law (d) Ampere's law

Q2. X-rays are used for the study of crystal structure because

- (a) X-rays are completely absorbed by the crystal
- (b) the wavelength of X-ray is of the same order of magnitude in the inter atomic spacing in crystals
- (c) the wavelength of X-rays is very small in comparison with the inter atomic spacing in crystals
- (d) the crystals are completely transparent to X-rays

Q3. Emitter follower is used for

- (a) reducing the gain (b) increasing the distortion
- (c) impedance matching (d) none of these
- Q4. Binary equivalent of $(45)_{10}$ is (a) $(11101)_2$ (b) $(11110)_2$ (c) $(101101)_2$ (d) $(110101)_2$
- Q5. In Computer memory size K indicates Kilo, which is equal to (a) 1000 (b) 1024 (c) 100 (d) 10000

Q6. An astable multivibrator has (a) no stable state (b) one stable state (c) three stable states (d) two stable states

Q7. An ideal Op Amp has

- (a) infinite input and output impedance
- (b) very low input and output impedance
- (c) low input impedance and very high output impedance
- (d) infinite input impedance and zero output impedance

Q8. An instruction used to set the carry flag in a computer can be classified as a

- (a) data transfer instruction
- (b) arithmetic instruction(d) program control instruction
- (c) logical instruction

- Q9. An FET is a
 - (a) bipolar semiconductor device
 - (c) non semiconductor device
- (b) unipolar semiconductor device
- (d) both (a) and (c)
- Q10. For Gunn diodes, semiconductor material preferred is
 - (a) Silicon (b) Germanium (c) Gallium Arsenide (d) all of these

Q11.	In a J (a)	IFET drain cu zero	urrent is (b)	maximum wl negative	hen V _{Gs} (c)	s is positive	(d)	equal to Vp		
Q12.	The c	output of Las	er is							
	(a)	Infrared	(b)	polarised	(c)	narrow bea	m (d)	coherent		
Q13.	As cc (a) (b) (c) (d)	ompared to a more stable less stable more stable less stable	closed e as we as well e but les but mo	loop system a ll as more acc as less accur ss accurate re accurate	an oper curate rate	n loop system	ı is			
Q14.	Trans	sfer function	of a sys	tem is used to	o calcul	ate				
	 (a) the steady state gain (c) the order of the system 					the time constant				
	(0)		or a giv	on input						
Q15.	 (a) control action depends upon the output and also on the input command (b) output signal is fed back to be compared with the reference signal (c) the accuracy is better than in the open loop system (d) all of the above 									
Q16.	The o	difference of	the refe	rence input a	and the	actual output	signal	is called		
Q17.	lf the	transfer fund	ction of	a svstem is—	— .the s	steady state	error to	unit step input is		
-	(a)	T (b)	zero	(C)	infinit	e (d) r	none of	these		
Q18.	In a F on (a) (b) (c) (d)	PID controlle future, pas present, pa past, prese present, fu	r,the va t and pr ast and f ent and f ture and	lues of propo esent errors r future errors r future errors r l past errors r	ertional, respecti respecti respecti respecti	integral and vely vely vely vely	derivati	ve are dependent		
Q19.	The i	nverse Lapla	ice trans	sform of $\frac{2}{s+1}$ is		_				
	(a)	2(t+1)	(b)	2e ^{-t}	(c)	2e ^t	(d)	e ^{-2t}		
Q20.	The s requi (a)	signal is exte red is 8KHz	nded fro	om 96KHz to 200KHz	100KHz (c)	z, so the mini 4KHz	mum sa (d)	ampling frequency 100KHz		
Q21.	A diff (a) (c)	erentiation c very high ti infinite time	ircuit ha me con e consta	s a stant nt	(b) (d)	very low tin zero time c	ne cons onstant	tant		
Q22.	. Ideally Voltage Standing Wave Ratio (VSWR) should be (a) as large as possible (b) as small as possible									

(c) as close to unity as possible (d) infinity

Q23.	 Following is/are a property/properties of quantization (a) it is an nonlinear process (b) it is an irreversible process (c) it maps a larger set of input (d) all of these values to a smaller set 								
Q24.	Most commonly used filter in SSB generation are (a) mechanical filters (b) RC filters (c) LC filters (d) low pass filters								
Q25.	If the antenna diameter in a radar system is increased by a factor of 4, the maximum range will be increased by a factor of (a) (b) (c) (c) (c) (d) (c) (c) (c)								
Q26.	Following type of multiplexing cannot be used for analog signalling								
	(a) FDM (b) TDM (c) CDM (d) None of these								
Q27.	In TDM systems, channel separation is done with the use of (a) AND gates (b) bandpass filters (c) differentiator circuit (d) integrator circuit								
Q28.	A radioactive isotope has a half-life of 10 days. If today there are 125 g of it left, what was its original weight 40 days earlier								
	(a) 600 g (b) 1000 g (c) 1250 g (d) 2000 g								
Q29.	Angles project true size only when the plane containing the angle and plane of projection are								
• • •	(a) Aligned (b) Adjacent (c) Perpendicular (d) Parallel								
Q30.	I esta is a measure of(a) magnetic flux density(b) electric flux density(c) magnetic potential(d) electric potential								
Q31.	Admittance is reciprocal of (a) susceptance (b) impedance (c) reactance (d) conductance								
Q32.	is an active filter (a) RC filter (b) notch filter (c) Butterworth filter (d) band pass filter								
Q33.	For transmission line load matching over a range of frequencies , it is best to use a(a) Balun(b) broadband directional coupler(c) double stub(d) single stub								
Q34.	 Data-link layer of the OSI model specifies (a) data link procedures that provide for the exchange of data via frames that can be sent and received (b) the interface between the X.25 network and packet mode device (c) the virtual circuit interface to packet-switched service (d) all of the above 								
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- - (d) the bandwidth required is different

Q38.	Transducer is a device which (a) converts one form of power in to the other (c) converts one form of energy in to other (d) helps in measuring electricity									
Q39.	Princi (a) ele	ple of hystere ectrical water	sis is n geyser	ot used in (b) electric	al r	notor	(c) multi-v	vibrat	ors (c	d) Schmitt trigger
Q40.	Which of the following motors would not be suitable for use as servomotors? (a) AC induction motor (b) brushless AC motor (c) stepper motor (d) permanent magnet DC motor						vomotors? otor			
Q41.	The stator of an induction motor is made of (a) carbon (b) wood (c) copper stampings (d) silicon steel laminators									
Q42.	An ide (a)	eal DC genera Iow	itor is c (b)	one that has high	S	(c) v	oltage ree zero	gulat	ion (d)	positive
Q43.	Comn	nutator is used	d in							
	(a) D	C generator	(b) A	C generato	r	(c) in	vertors		(d)	convertors
Q44.	lf x=a (a)	(cos t + t sin t) cos t), y=a(s (b)	sin t – t cos sin t	s t).	The va (c)	alue of d tan t	$\frac{y}{x}$ is	(d)	sec ² t
Q45.	The a 9000 (a)	area of three cm ³ . The leng 15 cm	faces th of th (b)	of a cub le shortest 30 cm	oid edą	are i ge is (c)	n the rat 20 cm	io 2	:3:4 a (d)	nd its volume is 60 cm
Q46.	$\int \frac{dx}{x \log x}$	is equal to								
	(a)	log x+x+c	(b)	log(logx)+	·С	(c)	xlogx+c		(d)	$\frac{\log x}{x}$ +C
Q47.	. Tickets numbered 1 to 20 are mixed up and then a ticket is drawn at random. What is the probability that the ticket drawn has a number which is a multiple of 3 or 5?					at random. What Itiple of 3 or 5?				
	(a)	8/2	(b)	9/20		(c)	8/15		(d)	2/20
Q48.	The p	rojection of a	vector	on another	ve	ctor is				
	(a)	Scalar				(b)	Vector			
049	(C) In MK	S system we	r nor s measi	calar Ire		(d)	either so	calar	or vec	ctor
Q-10.	(a)	mass in kiloo	Iram			(b)	distance	e in m	neter	
	(c)	time in secor	nd			(d)	all of the	ese		
Q50.	When them	the separation	on betv	veen two c	har	rges is	s made fo	our tii	mes, t	he force between
	(a)	increases for	ur time	S		(b)	decreas	es fo	our tim	es
	(c)	increases six	teen ti	mes		(d)	decreas	es si	xteen	times

Instru	nstructions for Candidates Time Allotted: 45 Minutes					
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3.	No mark will be deducted for un-attempted Question.					
4.	Do not write or make any mark on Question Paper.					
Q1.	If the centre of a circle is (-6,8) and it passes through the origin, then equation to its tangent at the origin is (a) $2y = x$ (b) $4y = 3x$ (c) $3y = 4x$ (d) $3x + 4y = 0$					
Q2.	The liquid is flowing separately through each of two pipes whose diameters are in the ratio of 2:1, if the ratio of the velocities of flow in the two pipes by 1:2, then the ratio of the amounts of the liquid flowing per sec through the pipe will be (a) 2:1 (b) 1:1 (c) 4:1 (d) 1:8					
Q3.	If $f(x) = x + x^2 - 8 $ then the derivative of $f(x)$ at $x=3$ is (a) 6 (b) 7 (c) 8 (d) -8					
Q4.	Given P(A) = 1/4, P(B)=1/3 and P(AUB)= 1/2. Value of P(A/B) is (a) 1/4 (b) 1/3 (c) 1/6 (d) 1/7					
Q5.	The angle between two vectors a = i+2j-k and b=2i+j+k is (a) 30 deg (b) 45 deg (c) 60 deg (d) 90 deg					
Q6.	Newton is unit of force. It is the unit in (a) MKS system (b) CGS system (c) FPS system (d) none of these					
Q7.	A Farad is defined as (a) stat coulomb /volt (b) coulomb/volt (c) coulomb x volt (d) stat coulomb x volt					
Q8.	Permeance of a magnetic circuit corresponds to the following quantity in electrical circuit (a) conductivity (b) resistivity (c) conductance (d) resistance					
Q9.	Hydrometer is an instrument for measuring (a) relative humidity (b) pressure of water (c) volume of liquids (d) specific gravity					
Q10.	Radioactivity is a property of (a) atomic nuclei (b) excited electron (c) gamma rays (d) ultraviolet light					
Q11.	A bar of length ' <i>L</i> ' meters extends by ' <i>I</i> 'mm under a tensile force of ' <i>P</i> '. The strain produced in the bar is (a) I/L (b) 0.1 I/L (c) 0.01 I/L (d) 0.001 I/L					
Q12.	 A rod is enclosed centrally in a tube and the assembly is tightened by rigid washers. If the assembly is subjected to a compressive load, then (a) rod is under compression (b) tube is under compression (c) both rod and tube are under compression (d) tube is under tension and rod is under compression 					

Q13.	3. The shear force and bending moment are zero at the free end of a cantilever beam, if it carries a						
	 (a) point load at the free end (b) point load at the middle of its length (c) uniformly distributed load over the whole length (d) none of the above 						
Q14.	The moment of resistance of a balanced reinforced concrete beam is based on the stresses in (a) steel only (b) concrete only (c) steel and concrete both (d) none of these						
Q15.	In a flange coupling, the flanges are coupled together by means of (a) bolts and nuts (b) studs (c) headless taper bolts (d) none of these						
Q16.	A transmission shaft includes (a) counter shaft (b) line shaft (c) over head shaft (d) all of these						
Q17.	A locking device in which the bottom cylindrical portion is recessed to receive the tip of the locking set screw, is called (a) castle nut (b) jam nut (c) ring nut (d) sawn nut						
Q18.	In a venturiflume, the flow takes place at (a) atmospheric pressure (b) gauge pressure (c) absolute pressure (d) none of these						
Q19.	The total pressure on the top of a closed cylindrical vessel completely filled up with a liquid is (a) directly proportional to $(radius)^2$ (b) inversely proportional to $(radius)^2$ (c) directly proportional to $(radius)^4$ (d) inversely proportional to $(radius)^4$						
Q20.	 (d) inversely propertional to (radius) When the Mach number is more than 6, the flow is called (a) subsonic flow (b) sonic flow (c) super-sonic flow (d) hyper-sonic flow 						
Q21.	The discharge through a convergent mouthpiece is the discharge through an internal mouthpiece of the same diameter and head of water. (a) equal to (b) one-half (c) three fourth (d) double						
Q22.	Which of the following statement is wrong?						
	 (a) The spheroidising process is usually applied to high carbon tool steels which are difficult to machine (b) In spheroidising process, the cementite in the granular form is produced in the structure of steel (c) The annealing process causes complete recrystallisation in steels which have been severely cold worked and a new grain structure is formed (d) none of the above 						
Q23.	 Duplex process of steel making is a combination of (a) basic bessemer and acid open hearth processes (b) acid bessemer and basic open hearth processes (c) acid bessemer and acid open hearth processes (d) basic bessemer and basic open hearth processes 						
Q24.	The property of a material necessary for forgings, in stamping images on coins and in ornamental work, is						

(a) elasticity (b) plasticity (c) ductility (d) malleability

- Q25. A ladder is resting on a smooth ground and leaning against a rough vertical wall. The force of friction will act
 - towards the wall at its upper end (b) (a) (d)
 - upward at its upper end
 - downward at its upper end (c)
- Q26. The slope on the road surface generally provided on the curves is known as (a) angle of friction (b) angle of repose (c) angle of banking (d) none of these
- Q27. For any system of coplanar forces, the condition of equilibrium is that the
 - algebraic sum of the horizontal components of all the forces should be zero (a)
 - algebraic sum of the vertical components of all the forces should be zero (b)
 - (c) algebraic sum of moments of all the forces about any point should be zero
 - all of the above (d)
- Q28. An open cycle gas turbine works on
 - Carnot cycle (b) Otto cycle (c) Joule's cycle (d) Stirling cycle (a)
- Q29. When the gas is cooled at constant pressure,
 - its temperature increases but volume decreases (a)
 - its volume increases but temperature decreases (b)
 - both temperature and volume increases (c)
 - (d) both temperature and volume decreases
- Q30. As per Charles' law, the volume of a given mass of a perfect gas varies _ as its absolute temperature, when the absolute pressure remains constant.
 - directly indirectly (c) (d) none of the above (a) (b) no relation
- Q31. In an extensive property of a thermodynamic system
 - extensive heat is transferred (b) extensive work is done (a)
 - extensive energy is utilised (c) (d) none of these
- Q32. Rotary compressors are used for delivering
 - small quantities of air at high pressures (a)
 - large quantities of air at high pressures (b)
 - small quantities of air at low pressures (c)
 - (d) large quantities of air at low pressures
- Q33. A rotary compressor is driven by an (a) electric motor (b) engine
 - (c) either (a) or (b) (d) none of these
- Q34. In a centrifugal compressor, an increase in speed at a given pressure ratio causes (a)
 - increase in flow decrease in flow (b)
 - increase in efficiency (d) increase in flow and decrease in efficiency
- Q35. A large clearance Volume in a reciprocating compressor results in
 - reduced volume flow rate (b) increased volume flow rate (a) (d) lower delivery pressure
 - (c) lower suction pressure
- Q36. The effect of having excess camber is
 - excessive steering alignment torque hard steering (a) (b)
 - too much traction (c)

(c)

- (d) uneven tyre wear
- Q37. If the air-fuel mixture ignites before the spark takes place at spark plug, the condition is called
 - detonation pre-ignition (d) rumble (a) (b) ignition (C)

away from the wall at its upper end

Q38.	8. The diagram which shows the correct crank positions corresponding to the opening and closing of the valves, is known as										
	(a) (c)	indicator dia valve timing	gram diagra	ım			(b) (d)	axial t none o	force c of thes	liagram e	
Q39.	In valu (a) (c)	ue engineering manufacturin total cost of t	g, the t ig cost he pro	erm va of the duct	llue refe produc	ers to t	(b) (d)	selling utility (price of the	of the proc product	duct
Q40.	Produ (a) (b) (c) (d)	ction cost refe factory overh factory and a factory, admi factory, admi	ers to p leads idminis inistrat inistrat	orime c stration ion and ion, sa	ost plus overhe d sales les ove	s eads overhe rheads	ads and pr	rofit			
Q41.	A systematic job improvement sequence will (a) motion study (b) time study (c)			e will co (c)	consist of job enrichment (d) all of these				se		
Q42.	Cast i (a) (c)	ron during ma continuous c continuous c	ichining hips hips w	g produ ith built	uces t-up-ed	ge	(b) (d)	discor none d	ntinuou of thes	is chips e	
Q43.	A sing (a) (c)	le point threa zero rake an negative rake	d cuttir gle e angle	ng tool e	should	ideally	have (b) (d)	positiv point a	re rake angle	angle	
Q44.	The c (a)	utting tool in a spindle	milling (b)	g mach arbor	ine is n	nounte (c)	d on colum	in	(d)	knee	
Q45.	One of typing	uick way to	view tł	ne enti	re drav	ving ar	ea is t	o use t	he Zo	om comm	and by
	(a) (c)	type Z enter type SHOWA	A ente ALL en	r ter			(b) (d)	type Z type A	enter	E enter ter	
Q46.	When to	setting up a	mecha	inical d	Irawing	in Auto	oCAD 1	the drat	fter sh	ould set th	e units
	(a)	fractional	(b)	decim	nal	(c)	archite	ectural	(d)	metric	
Q47.	In a c avoid	lass B push-p	oull an	nplifier,	the tra	Insistor	s are t	biased	slightly	v above cu	it-off to
	(a) (c)	crossover dis negative feed	stortior dback	١			(b) (d)	unusu a low i	ally hiq input ir	gh efficiend mpedance	су
Q48.	 The depletion-mode MOSFET (a) can operate with only positive gate voltages (b) can operate with only negative gate voltages (c) cannot operate in the ohmic region (d) can operate with positive as well as negative gate voltages 										
Q49.	Ailero (a)	ns are used to Yaw of aircra	o contre aft	ol (b)	pitch		(c)	roll	(d)	None of t	hese
Q50.	Stallin (a) (b)	g of the aerof When the an When the an	oil occ gle of gle of	urs attack i attack i	is beyo is less t	nd criti than cri	cal ang itical ar	le of at	tack. attack.		

- (c) (d) Both A and B
 - None of the above

Instru	tructions for Candidates Time Allotted: 45 Minutes							
1.	Total number of Questions 50. Each Question is of three marks.							
2.	One mark will be deducted for every wrong answer.							
3.	No mark will be deducted for un-attempted Question.							
4.	Do not write or make any mark on Question Paper.							
Q1.	One quick way to view the entire drawing area is to use the Zoom comman typing	nd by						
	 (a) type Z enter A enter (b) type Z enter E enter (c) type SHOWALL enter (d) type ALL enter 							
Q2.	When setting up a mechanical drawing in AutoCAD the drafter should set the to	units						
	(a) fractional (b) decimal (c) architectural (d) metric							
Q3.	In a class B push-pull amplifier, the transistors are biased slightly above cut- avoid	off to						
	 (a) crossover distortion (b) unusually high efficiency (c) negative feedback (d) a low input impedance 							
Q4.	 The depletion-mode MOSFET (a) can operate with only positive gate voltages (b) can operate with only negative gate voltages (c) cannot operate in the ohmic region (d) can operate with positive as well as negative gate voltages 							
Q5.	Ailerons are used to control (a) Yaw of aircraft (b) pitch (c) roll (d) None of these							
Q6.	 Stalling of the aerofoil occurs (a) When the angle of attack is beyond critical angle of attack. (b) When the angle of attack is less than critical angle of attack. (c) Both A and B (d) None of the above 							
Q7.	As per Charles' law, the volume of a given mass of a perfect gas v as its absolute temperature, when the absolute pressure rer constant.	/aries nains						
	(a) directly (b) indirectly (c) no relation (d) none of the a	lbove						
Q8.	In an extensive property of a thermodynamic system (a) extensive heat is transferred (b) extensive work is done (c) extensive energy is utilised (d) none of these							
Q9.	 Rotary compressors are used for delivering (a) small quantities of air at high pressures (b) large quantities of air at high pressures (c) small quantities of air at low pressures (d) large quantities of air at low pressures 							
Q10.	. A rotary compressor is driven by an							

(a) electric motor (b) engine (c) either (a) or (b) (d) none of these

Q11.	In a centrifugal compressor, an increase in speed at a given pressure ratio causes(a) increase in flow(b) decrease in flow(c) increase in efficiency(d) increase in flow and decrease in efficiency					
Q12.	 A large clearance Volume in a reciprocating compressor results in (a) reduced volume flow rate (b) increased volume flow rate (c) lower suction pressure (d) lower delivery pressure 					
Q13.	Newton is unit of force. It is the unit in (a) MKS system (b) CGS system (c) FPS system (d) none of these					
Q14.	 A Farad is defined as (a) stat coulomb /volt (b) coulomb/volt (c) coulomb x volt (d) stat coulomb x volt 					
Q15.	Permeance of a magnetic circuit corresponds to the following quantity in electrical circuit (a) conductivity (b) resistivity (c) conductance (d) resistance					
Q16.	Hydrometer is an instrument for measuring (a) relative humidity (b) pressure of water (c) volume of liquids (d) specific gravity					
Q17.	Radioactivity is a property of(a) atomic nuclei(b) excited electron(c) gamma rays(d) ultraviolet light					
Q18.	A bar of length ' <i>L</i> ' meters extends by ' <i>I</i> 'mm under a tensile force of ' <i>P</i> '. The strain produced in the bar is (a) I/L (b) 0.1 I/L (c) 0.01 I/L (d) 0.001 I/L					
Q19.	 A rod is enclosed centrally in a tube and the assembly is tightened by rigid washers. If the assembly is subjected to a compressive load, then (a) rod is under compression (b) tube is under compression (c) both rod and tube are under compression (d) tube is under tension and rod is under compression 					
Q20.	The shear force and bending moment are zero at the free end of a cantilever beam, if it carries a (a) point load at the free end (b) point load at the middle of its length (c) uniformly distributed load over the whole length (d) none of the above					
Q21.	The moment of resistance of a balanced reinforced concrete beam is based on the stresses in (a) steel only (b) concrete only (c) steel and concrete both (d) none of these					
Q22.	In a flange coupling, the flanges are coupled together by means of (a) bolts and nuts (b) studs (c) headless taper bolts (d) none of these					
Q23.	A transmission shaft includes (a) counter shaft (b) line shaft (c) over head shaft (d) all of these					
Q24.	A locking device in which the bottom cylindrical portion is recessed to receive the tip of the locking set screw, is called (a) castle nut (b) jam nut (c) ring nut (d) sawn nut					
Q25.	In a venturiflume, the flow takes place at (a) atmospheric pressure (b) gauge pressure (c) absolute pressure (d) none of these					

- Q26. The total pressure on the top of a closed cylindrical vessel completely filled up with a liquid is
 - directly proportional to (radius)² (b) inversely proportional to $(radius)^2$
 - (C) directly proportional to (radius)⁴
 - (d) inversely proportional to (radius)⁴
- Q27. When the Mach number is more than 6, the flow is called
 - subsonic flow (b) sonic flow
 - (d) super-sonic flow hyper-sonic flow
- Q28. The discharge through a convergent mouthpiece is _ ____ the discharge through an internal mouthpiece of the same diameter and head of water.
 - equal to one-half (c) three fourth (d) (a) (b) double
- Q29. Which of the following statement is wrong?

The spheroidising process is usually applied to high carbon tool steels which (a) are difficult to machine

(b) In spheroidising process, the cementite in the granular form is produced in the structure of steel

The annealing process causes complete recrystallisation in steels which (c) have been severely cold worked and a new grain structure is formed

none of the above (d)

(a)

(a)

(c)

- Q30. Duplex process of steel making is a combination of
 - basic bessemer and acid open hearth processes (a)
 - (b) acid bessemer and basic open hearth processes
 - (c) acid bessemer and acid open hearth processes
 - basic bessemer and basic open hearth processes (d)
- Q31. The property of a material necessary for forgings, in stamping images on coins and in ornamental work, is
 - (C) (d) (a) elasticity (b) plasticity ductility malleability
- Q32. A ladder is resting on a smooth ground and leaning against a rough vertical wall. The force of friction will act
 - towards the wall at its upper end (b) away from the wall at its upper end (a)
 - downward at its upper end (c) (d)
- Q33. The slope on the road surface generally provided on the curves is known as (a) angle of friction (b) angle of repose (c) angle of banking (d) none of these
- Q34. For any system of coplanar forces, the condition of equilibrium is that the
 - algebraic sum of the horizontal components of all the forces should be zero (a)
 - algebraic sum of the vertical components of all the forces should be zero (b)
 - algebraic sum of moments of all the forces about any point should be zero (c)
 - all of the above (d)
- Q35. An open cycle gas turbine works on
 - (a) Carnot cycle (b) Otto cycle (c) Joule's cycle (d) Stirling cycle
- Q36. When the gas is cooled at constant pressure,
 - its temperature increases but volume decreases (a)
 - (b) its volume increases but temperature decreases
 - (c) both temperature and volume increases
 - both temperature and volume decreases (d)

- upward at its upper end

Q37.	The e (a) (c)	ffect of having excessive st too much tra	g exces eering action	ss camber is alignment to	rque	(b) (d)	hard uneve	steerin en tyre	g wear	
Q38.	lf the condi (a)	air-fuel mix tion is called detonation	ture ig (b)	nites before ignition	the s (c)	park ta pre-i	akes pl gnition	ace at (d)	spark plug rumble	, the
Q39.	 39. The diagram which shows the correct crank and closing of the valves, is known as (a) indicator diagram (c) valve timing diagram 					oosition (b) (d)	ns corre axial none	spondi force d e of the	ng to the ope iagram se	ening
Q40.	In val (a) (c)	ue engineerin manufacturii total cost of	g, the t ng cost the pro	erm value re of the produ duct	fers to ct	(b) (d)	sellin utility	g price of the	of the product	ct
Q41.	 41. Production cost refers to prime cost plus (a) factory overheads (b) factory and administration overheads (c) factory, administration and sales overheads (d) factory, administration, sales overheads and profit 									
Q42.	A sys (a)	tematic job im motion study	nprover ⁄ (b)	nent sequend time study	ce will o (c)	consist job e	of nrichm	ent (d)	all of these	
Q43.	 Cast iron during machining produces (a) continuous chips (b) discontinuous chips (c) continuous chips with built-up-edge (d) none of these 									
Q44.	A sin((a) (c)	gle point threa zero rake ar negative rak	ad cuttii igle ie angle	ng tool should e	d ideall	y have (b) (d)	positi point	ve rake angle	angle	
Q45.	The c (a)	utting tool in a spindle	a milling (b)	g machine is arbor	mounte (c)	ed on colur	nn	(d)	knee	
Q46.	If the tange (a)	centre of a ci nt at the original $2y = x$	rcle is (n is (b)	(-6,8) and it p	asses	throug	h the o	rigin, th (d)	en equation 3x + 4y = 0	to its
Q47.	(a) $2y = x$ (b) $4y = 3x$ (c) $3y = 4x$ (d) $3x + 4y = 0$ 7. The liquid is flowing separately through each of two pipes whose diameters are in the ratio of 2:1, if the ratio of the velocities of flow in the two pipes by 1:2, then the ratio of the amounts of the liquid flowing per sec through the pipe will be (a) 2:1 (b) 1:1 (c) 4:1 (d) 1:8									
Q48.	If $f($	$x) = x + x^2 - x + x^2 - $	- 8 the	en the derivat	tive of <i>j</i>	f(x) at	<i>x</i> =3 is			
Q49	(a) Giver	6 P(A) = 1/4 F	(b) P(B)=1/	7 3 and P(ALIR	(c) (1/2) = 1/2	8 Value	of P(A/	(d) B) is	-8	
<u> </u>	(a)	1/4	(b)	1/3	(C)	1/6	5.1 (70	(d)	1/7	
Q50.	The a (a)	ingle between 30 deg	two ve (b)	ectors a = i+2 45 deg	2j-k and (c)	+ b=2i 60 de	·j+k is eg	(d)	90 deg	

ANSWER KEYS: EKT Model Question Paper (Mechanical)-I

Question Number	Answer	Question Number	Answer
1	В	26	С
2	A	27	D
3	В	28	С
4	А	29	D
5	С	30	А
6	С	31	D
7	В	32	D
8	С	33	С
9	D	34	D
10	А	35	А
11	D	36	D
12	С	37	С
13	С	38	С
14	С	39	D
15	А	40	А
16	D	41	D
17	С	42	В
18	А	43	А
19	С	44	В
20	D	45	А
21	D	46	В
22	D	47	А
23	В	48	D
24	В	49	С
25	D	50	A

Question Number	Answer	Question Number	Answer
1	А	26	С
2	В	27	D
3	А	28	D
4	D	29	D
5	С	30	В
6	А	31	В
7	А	32	D
8	D	33	С
9	D	34	D
10	С	35	С
11	D	36	D
12	А	37	D
13	С	38	С
14	В	39	С
15	С	40	D
16	D	41	А
17	А	42	D
18	D	43	В
19	С	44	А
20	С	45	В
21	С	46	В
22	А	47	А
23	D	48	В
24	С	49	А
25	А	50	С

ANSWER KEY: EKT Model Question Paper (Mechanical)-II

Question Number	Answer	Question Number	Answer
1	В	26	D
2	А	27	С
3	В	28	D
4	А	29	В
5	С	30	С
6	A	31	А
7	D	32	В
8	С	33	D
9	D	34	D
10	A	35	В
11	A	36	А
12	D	37	С
13	С	38	А
14	В	39	С
15	С	40	А
16	С	41	В
17	A	42	А
18	A	43	А
19	А	44	С
20	В	45	С
21	В	46	D
22	С	47	В
23	В	48	В
24	В	49	В
25	С	50	С

ANSWER KEYS: EKT Model Question Paper (Computer Science)-I

Question Number	Answer	Question Number	Answer
1	А	26	С
2	D	27	А
3	С	28	В
4	В	29	D
5	С	30	D
6	В	31	В
7	А	32	А
8	С	33	А
9	А	34	С
10	С	35	С
11	А	36	D
12	С	37	В
13	А	38	В
14	А	39	В
15	А	40	С
16	В	41	В
17	В	42	А
18	С	43	В
19	В	44	А
20	В	45	С
21	С	46	D
22	D	47	А
23	С	48	С
24	D	49	А
25	В	50	D

ANSWER KEYS: EKT Model Question Paper (Computer Science)-II

Question Number	Answer	Question Number	Answer
1	С	26	С
2	А	27	D
3	В	28	D
4	В	29	А
5	А	30	В
6	D	31	В
7	D	32	В
8	В	33	В
9	В	34	В
10	D	35	С
11	D	36	D
12	А	37	А
13	В	38	А
14	С	39	В
15	С	40	А
16	С	41	А
17	С	42	А
18	В	43	А
19	А	44	В
20	D	45	С
21	С	46	С
22	В	47	С
23	С	48	D
24	A	49	С
25	D	50	А

ANSWER KEYS: EKT Model Question Paper (Electrical & Electronics)-I

Question Number	Answer	Question Number	Answer
1	В	26	В
2	В	27	А
3	С	28	D
4	С	29	D
5	В	30	А
6	А	31	В
7	D	32	С
8	С	33	С
9	В	34	А
10	С	35	А
11	А	36	А
12	D	37	В
13	С	38	С
14	D	39	С
15	D	40	С
16	А	41	D
17	В	42	С
18	В	43	А
19	В	44	С
20	В	45	А
21	В	46	В
22	С	47	В
23	D	48	A
24	А	49	D
25	A	50	D

ANSWER KEYS: EKT Model Question Paper (Electrical & Electronics)-II

TIME ALLOTTED – 2HRS

INSTRUCTIONS FOR CANDIDATES

- 1. Total Number of Questions-100. Each Question is of three marks.
- 2. One mark will be deducted for every wrong answer.
- 3. No mark will be deducted for un-attempted questions.
- 4. Do not write on the Question Paper or make any mark on it.

Q1-3. Read the following passage carefully and answer the questions given below it:-

In spring, polar bear mothers emerge from dens with three months old cubs. The mother bear has fasted for as long as eight months but that does not stop the young from demanding full access to her remaining reserves. If there are triplets, the most persistent stands to gain an extra meal at the expense of others. The smallest of the cubs forfeits many meals to stronger siblings. Females are protective of their cubs but tend to ignore family rivalry over food. In 21 years of photographing polar bears, I have only once seen the smallest of triplets survive till autumn.

Q1. Female polar bears give birth during

- (a) Spring
- (b) Summer
- (c) Autumn
- (d) Winter

Q2. Mother bear

- (a) Takes sides over cubs
- (b) Lets the cubs fend for themselves
- (c) Feeds only their favourites
- (d) Sees that all cubs get an equal share

Q3. With reference to the passage, the following assumptions have been made:-

- I. Polar bears fast as long as eight months due to non availability of prey.
- II. Polar bears always give birth to triplets.

Which of the assumptions given above is/ are true?

	(a)	I only	(b) I	l only	(c)	Both I and II	(d)	Neither I nor II
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Q4-9 Select the most appropriate word from the options against each number:-

As home entertainment, television is rapidly becoming more (<u>4</u>) than any other form. A news broadcast becomes more immediate when people (<u>5</u>) actually see the scene (<u>6</u>) question and the movement of the figures. Films could be viewed in the (<u>7</u>) of the home and a variety of shows are also available. One of the advantages of travel programmes is the (<u>8</u>) of faraway places which many viewers would not (<u>9</u>) see.

Q4.	(a)	interesting	(b)	popular	(c)	powerful	(d)	purposeful		
Q5.	(a)	could	(b)	would	(c)	might	(d)	shall		
Q6.	(a)	of	(b)	with	(c)	as	(d)	in		
Q7.	(a)	surroundings	(b)	assistance	(c)	comfort	(d)	privilege		
Q8.	(a)	glimpses	(b)	image	(c)	portrait	(d)	picture		
Q9.	(a)	possible	(b)	rather	(c)	else	(d)	otherwise		
Q10-1	3.	Choose the word which is nearest in meaning to the given word:-								
Q10.	(a)	Authoritative	(b)	Impersonal	(c)	Strenuous	(d)	Unbending		
Q11.	Intimid (a)	late Mislead	(b)	Misplace	(c)	Frighten	(d)	Demoralise		
Q12.	Spora (a)	dic Epidemic	(b)	Whirling	(c)	Occasional	(d)	Stagnant		
Q13.	Genes (a)	sis Style	(b)	Beainnina	(c)	Movement	(d)	Relevant		

Q14-17. Choose the word which is nearly opposite in meaning to the given word:- Q14. Malevolent									
	(a)	Kindly	(b)	Vacuous	(c)	Ambivalent	(d)	Primiti	ive
Q15.	Purgat (a)	tory Reward	(b)	Celestial	(c)	Flawless	(d)	Proxin	nity
Q16.	Cleme (a)	ncy Corporal	(b)	Intolerance	(c)	Compromise	(d)	Sensil	bility
Q17.	Cajole (a)	Nestle	(b)	Secede	(c)	Bully	(d)	Moiste	en
Q18-21. Choose the word that best defines the given phrases:-									
Q18.	in wea (a) (c)	By hook or cro in prosperity a	ook and adv	ersity	(b) (d)	During illness During the op	eration		
Q19.	Globet (a) (c)	trotters People agains Intelligent mir	st globa ids	l philosophy	(b) (d)	People indulg Travellers aro	ing in tr und the	eacher world	у
Q20.	A Curt (a) (c)	ain Lecture To speak plai Private scoldi	nly ng of a	husband by his	s wife	(b) (d)	Vulgar Hate c	r Ideas others	
Q21.	Square pegs in round holes (a) A genuinely helpful person (c) People in the wrong jobs					A Clever person To be perplexed			
Q22-2	5. Cho	oose the corre	ctly sp	elt word:-		_ · · · /		(1)	_ ,
Q22.	(a)	Equanimity	(b)	Equannimity	(C)	Equanimmisty	/	(d)	Equinimity
Q23.	(a)	Vetarinary	(b)	Veteninary	(C)	Veterinary		(d)	Vetniary
Q24.	(a)	Konnoisseur	(b)	Conoisseur	(c)	Connoisseur		(d)	Konoisseur
Q25.	(a)	Munifisent	(b)	Muneficent	(c)	Munificent		(d)	Munificient
Q26-2	9. Whi	ch word or wo ,	ords ex	plains the mea	aning o	f the following	j idiom	S:-	
Q26.	in a jifi (a)	ry Outstanding	(b)	Suddenly	(c)	In a fix		(d)	Appropriate
Q27.	Upto tl (a) (c)	he hilt Completely Upto the final	decisio	n	(b) (d)	Upto the mar None of these	k e		
Q28.	Man of Letters (a) Who writes too many letters (c) A politician				(b) (d)	An important person A literary person			
Q29.	Sangfi (a) (c)	roid Composure Changed Sud	ldenly		(b) (d)	Go on leave Make an atter	npt		
Q30-6	5. Cho	oose the most	approj	oriate answer:	-				
Q30.	Which (a)	country among Sierra Leone	g the fol (b)	lowing has bee Liberia	en decla (c)	ared Ebola-free Nigeria	by WH (d)	O? Guine	а
Q31.	How m (a)	nany Gold med 10	als did (b)	India win in the 11	Incheo (c)	n Asian Games 12	s held ir (d)	ו Oct 20 8	014?
Q32.	Who h (a) (c)	as been appoi Arvind Mayar Kaushik Basu	nted as am	the new Finan	ce Secr (b) (d)	etary of India? Rajiv Mehrish Dinesh Gupta	i		

Q33.	Which (a)	among the foll Agni II	owing is (b)	s India's first lo Prithvi	ng rang (c)	e subsonic cru Dhanush	ise miss (d)	sile? Nirbhay
Q34.	The br (a)	anch of science Cytology	e that s (b)	tudies cells is o Entomology	called (c)	Homoplastic	(d)	Hormonology
Q35.	How m	nany Vice Presi	dents a	are elected at th	ne start	of its each regu	ular ses	sion of UN General
	(a)	Nine	(b)	Fifteen	(c)	Two	(d)	Twenty one
Q36.	The hi	ghest civilian a	ward of n Mand	India 'Bharat F	Ratna' h is	as been award	led to o	nly two foreigners so far.
	(a) (c)	Marshal Tito Khan Abdul G	haffar ł	Khan	(b) (d)	Mikhail Gorba Abdul Wali Kh	ichev nan	
Q37.	Sir CV pheno	Raman was av menon of radia	warded tion?	Nobel Prize fo	r his wo	rk connected v	vith whi	ch of the following
038	(a) In whic	Scallenny	(u) adauar	Dimaction	(C) Nevelopr	nent Bank loca	(u) ted2	Polarisation
Q00.	(a)	Manila	(b)	Singapore	(c)	Bangkok	(d)	Jakarta
Q39.	K-15 n (a) (b) (c) (d)	nissile is Submarine lau Inter Continen Medium Rang Short Range I	unched Ital Ball Ie Ballis Ballistic	Ballistic Missile istic Missile (IC tic Missile (MR Missile (SRBM	e (SLBN 3BM) 3BM) 4)	1)		
Q40.	India a one of (a)	agreed to UN C the following re UNCCT	hief Bar ecently. (b)	n Ki-Moon's off UNICEF	fer to re (c)	main as a merr UNEP	nber of t (d)	he advisory board of UNCTAD
Q41.	Kazira (a) (c)	nga National P One-horned R Swamp Dears	ark is fa Rhinos 6 (Baras	amous for singha)	(b) (d)	Tigers Elephants		
Q42.	Who w (a) (c)	vas the first Ind Milkha Singh Karnam Malle	ian to w shwari	<i>i</i> in an individua	ll medal (b) (d)	in Olympics? PT Usha KD Jadhav		
Q43.	Who a	mong the follow	wing wa	s the Congres	s Presic	lent at Madras	Sessio	n of 1927 when it
	boycot (a) (c)	Maulana Abul Lala Lajpat Ra	Commi Kalam ai	Azad	(b) (d)	MA Ansari Subhash Cha	ndra Bo	ose
Q44.	 Why did Kalinga prove to be a turning point in the life of Ashoka? (a) Ashoka annexed Kalinga (b) It was the starting point of the expansion of his empire (c) Ashoka became a zealous Buddhist (d) It enabled Mauryan Empire to reach its climax 							
Q45.	Which (a) (c)	of the following Crime Branch Political Branc	g wings ch	was not part o	f the es (b) (d)	pionage systen Special Branc None of these	n descr :h :	ibed by Kautilya?
Q46.	Alaudo (a) (c)	din Khalji did no Siri Fort Hauz-i-Alai	ot build		(b) (d)	Tomb of Jalal Jamaat Khana	uddin a Masjio	t
Q47.	Which (a)	of the following Nanda	g dynas (b)	ties was ruling Maurya	over No (c)	orth India at the Sunga	e time o (d)	f Alexander's invasion? Kanva
Q48.	Which (a)	of the following Agni-I	g Interc (b)	ontinental Balli Agni-II	stic Mis (c)	siles (ICBMs) is Agni-IV	s under (d)	development in India? Agni-VI

Q49.	Who among the following was adjudged as the held at Incheon, South Korea? (a) Mary Kom of India (b	e Most Valuable Player of the	e 17 th Asian Games an
	(c) Ning Zetao of China (d	d) None of these	
Q50.	The opposition party status is accorded to a p least	political party in the Lok Sabh	a only if it captures at
	(a) 5% Seats (b) 10% Seats (c	c) 15% Seats (d) 20% Seats
Q51.	Who amongst the following is the author of the (a) Chetan Bhagat (b (c) Kiran Desai (d	e book 'A Bend in the River'? b) VS Naipaul d) Anita Desai	
Q52.	'Long Walk to Freedom' is a book written by (a) Sonia Gandhi (b (c) Nelson Mandela (d	o) LK Advani d) Benazir Bhutto	
Q53.	Which sports personality has been awarded th (a) Kapil Dev (b (c) Saina Nehwal (d	ne honorary rank of Group Ca b) Sania Mirza J) Sachin Tendulkar	aptain by the IAF?
Q54.	A man travelled from a point A to B at the rate Kmph. If the whole journey took 5 hrs 48 minu (a) 30 Km (b) 24 Km (c	of 25 Kmph and walked bac tes, the distance between A c) 20 Km (k at the rate of 4 and B is d) 51.6 Km
Q55.	A Train travelling at a uniform speed clears a p telegraph post in 5 seconds. The speed of the (a) 36 km/h (b) 39 km/h (c	olatform 200 m long in 10 sec train is c) 72 km/h (conds and passes a (d) 78 km/h
Q56.	The price of sugar increases by 20% due to th family reduce the consumption of sugar so that (a) 20% (b) $18^{1}/\%$ (c	the festive season. By what per- tat there is no change in the ex- c) $16^{2}/\%$ (ercentage should a kpenditure? (d) 16 ¹ / %
Q57.	A's salary is 20% lower than B's salary, which percent is C's salary more than A's salary? (a) 44.05% (b) 45.05% (c	is 15% lower than C's salary c) 46.05% (. By how much (d) 47.05%
Q58.	The average weight of 5 men is increased by 2	2 Kg when one of the men wl	hose weight is 60 Kg is
	replaced by a new man. The weight of the new (a) 50 Kg (b) 65 Kg (c	v man is c) 68 Kg ((d) 70 Kg
Q59.	A and B can do a piece of work in 18 days; B days. In how many days B alone can finish the	and C can do it in 24 days, A work?	and C can do it in 36
	(a) 48 days (b) 45 days (c	c) $28\frac{4}{5}$ days (d) 144 days
Q60.	A, B and C can do a piece of work in 20, 30 ar do the work if he is assisted by B and C on eve (a) 12 days (b) 15 days (c	nd 60 days respectively. In ho ery third day? :) 16 days (ow many days can A
061	(a) 12 aby (5) to day (6)	indo that it takes him thrice a	a much time to row up
QUI.	than as to row down the same distance in the (a) $3^{1}/_{3}$ Kmph (b) $3^{1}/_{9}$ Kmph (c)	river. The speed of the current $4^2/_3$ Kmph	nt is (d) $4^{1}/_{3}$ Kmph
Q62.	The speed of a boat in still water is 10 Kmph. upstream in the same time, the speed of the st	If it can travel 26 Km downst tream is	ream and 14 Km
	(a) 2 Kmph (b) 2.5 Kmph (d	c) 3 Kmph (d) 4 Kmph
Q63.	If a sum becomes double in 16 years, how ma (a) $1\frac{1}{2}$ times (b) $1\frac{1}{3}$ times (c	(x) ny times will it be in 8 years? (x) $1 \frac{3}{4}$ times (d) 1¹/₄times

- Q64. In how many years will a sum of Rs 800 at 10% per annum compounded semi-annually become Rs 926.10?
 - (a) $1^{1}/_{3}$ (b) $1^{1}/_{2}$ (c) $2^{1}/_{3}$ (d) $2^{1}/_{2}$
- Q65. A sells 2 TV sets, one at a loss of 15% and another at a profit of 15%. Find the loss/gain percentage in the overall transaction? (a) 2.25% (b) 3% (c) 4% (d) No profit, no loss

Q 66-70. Each of these questions given below contains three elements. These elements may or may not have some inter-linkage. Each group of elements may fit into one of these diagrams at (a), (b), (c) or (d). You have to indicate the group of elements which correctly fits into the diagrams.

Q66. Which of the following diagrams indicates the best relation between Doctors, Human Beings and Married People?



Q67. Which of the following diagrams indicates the best relation between Man, Worker and Garden?



Q68. Which of the following diagrams indicates the best relation between Males, Cousins and Nephews?



Q69. Which of the following diagrams indicates the best relation between Children, Naughty, and Studious?



Q70. Which of the following diagrams indicates the best relation between Thief, Criminal and Police?



Q71-75 In each of the following questions find out the alternative which will replace the question mark.

Q71.	Loath (a) (c)	: Coercion :: ?:? Detest : Caressing Irate : Antagonism	(b) (d)	Irritate : Caressing Reluctant : Persuasion
Q72.	Trilogy (a) (c)	/ : Novel :: ?:? Rice : Husk Serial : Episode	(b) (d)	Milk : Cream Gun : Cartridge
Q73	Wife : (a) (c)	Marriage :: ?:? Bank : Money Service : Qualification	(b) (d)	Nationality : Citizenship Attendance : Register
Q74.	East : (a) (c)	Orient :: ?:? North : Polar South : Capricorn	(b) (d)	North : Tropic West : Occident
Q75.	Ignom (a) (c)	iny : Disloyalty :: ?:? Death : Victory Fame : Heroism	(b) (d)	Martyr : Man Destruction : Victory

Q76-80. In each of the following questions, four words have been given out of which three are alike in some manner, while the fourth one is different. Choose the word which is different from the rest.

Q76.	(a)	Aravalli hills	(b)	Shivalik hills	(c)	Mole hills	(d)	Satpura hills
Q77.	(a)	Beaver	(b)	Alpaca	(c)	Walrus	(d)	Koala
Q78.	(a)	Othello	(b)	King Lear	(c)	Oliver Twist	(d)	Macbeth
Q79.	(a)	Nimitz	(b)	Yamamoto	(c)	Nelson	(d)	Montgomery
Q80.	(a)	Blaze	(b)	Glint	(c)	Simmer	(d)	Shimmer

Q81-85. In each of the following questions, select a figure from amongst the four alternatives, which when placed in the blank space of figure (X) would complete the pattern. Q81.


Q84.



Q86-90. Each of the following questions consists of five figures marked 1,2,3,4 and 5 called the Problem Figures followed by four other figures marked a, b, c and d called the Answer Figures. Select a figure from amongst the Answer Figures which will continue the same series as established by the five Problem Figures.



Q91-95. Each of the following questions consists of two sets of figures. Figures 1, 2, 3 and 4 constitute the Problem Set while figures a, b, c and d constitute the Answer Set. There is a definite relationship between figures (1) and (2). Establish a similar relationship between figures (3) and (4) by selecting a suitable figure from the Answer set that would replace the question mark (?) in fig.(4).

Q91.





Q96-100. In each problem, out of the four figures marked (a) (b) (c) and (d) three are similar in a certain manner. However, one figure is not like the other three. Choose the figure which is different from the rest.

Q96.

~	F-	→	•
(a)	(b)	(c)	(d)

Q97.



112

(d)

\$/To 0}

(a)

Q99.



(b)

(C)

AFCAT Model Question Paper-II

INSTRUCTIONS FOR CANDIDATES

TIME ALLOTTED – 2HRS

- **1.** Total Number of Questions-100. Each Question is of three marks.
- 2. One mark will be deducted for every wrong answer.
- 3. No mark will be deducted for un-attempted questions.
- 4. Do not write on the Question Paper or make any mark on it.

Q1-4. Which word or words explains the meaning of the following idioms:-

Q1.	In a ji (a)	ffy Outstanding	(b)	Suddenly	(c)	In a fix	(d)	Appropriate
Q2.	Upto (a) (c)	the hilt Completely Upto the final	l decisi	on	(b) (d)	Upto the n None of th	nark lese	
Q3.	Man ((a) (c)	of Letters Who writes to A politician	oo man	y letters	(b) (d)	An importa A literary p	ant persor person	1
Q4.	Sang (a) (c)	froid Composure Changed Sud	ddenly		(b) (d)	Go on lea Make an a	ve ittempt	

Q5-10 Select the most appropriate word from the options against each number:-

As home entertainment, television is rapidly becoming more (5) than any other form. A news broadcast becomes more immediate when people (6) actually see the scene (7) question and the movement of the figures. Films could be viewed in the (8) of the home and a variety of shows are also available. One of the advantages of travel programmes is the (9) of faraway places which many viewers would not (10) see.

Q5.	(a)	interesting	(b)	popular	(c)	powerful	(d)	purposeful
Q6.	(a)	could	(b)	would	(c)	might	(d)	shall
Q7.	(a)	of	(b)	with	(c)	as	(d)	in
Q8.	(a)	surroundings	(b)	assistance	(c)	comfort	(d)	privilege
Q9.	(a)	glimpses	(b)	image	(c)	portrait	(d)	picture
Q10.	(a)	possible	(b)	rather	(c)	else	(d)	otherwise
Q11-1	4. Cho	ose the word	which i	s nearest in m	eaning	to the given w	vord:-	
Q11.	Sporad (a)	dic Epidemic	(b)	Whirling	(c)	Occasional	(d)	Stagnant
Q12.	Genes (a)	is Style	(b)	Beginning	(c)	Movement	(d)	Relevant
Q13.	Intrans (a)	sigent Authoritative	(b)	Impersonal	(c)	Strenuous	(d)	Unbending
Q14.	Intimid (a)	ate Mislead	(b)	Misplace	(c)	Frighten	(d)	Demoralise

Q15-18. Choose the word which is nearly opposite in meaning to the given word:-

Q15.	Cleme (a)	ency Corporal	(b)	Intolerance	(c)	Compromise	(d)	Sensibility
Q16.	Cajole (a)	Nestle	(b)	Secede	(c)	Bully	(d)	Moisten

047	Mala	un la un f		2				
Q17.	iviale (a)	Kindly	(b)	Vacuous	(c)	Ambivalent	(d)	Primitive
Q18.	Purg	atory						
	(a)	Reward	(b)	Celestial	(c)	Flawless	(d)	Proximity

2

Q19-21. Read the following passage carefully and answer the questions given below it:-

In spring, polar bear mothers emerge from dens with three months old cubs. The mother bear has fasted for as long as eight months but that does not stop the young from demanding full access to her remaining reserves. If there are triplets, the most persistent stands to gain an extra meal at the expense of others. The smallest of the cubs forfeits many meals to stronger siblings. Females are protective of their cubs but tend to ignore family rivalry over food. In 21 years of photographing polar bears, I have only once seen the smallest of triplets survive till autumn.

Q19. With reference to the passage, the following assumptions have been made:-

- I. Polar bears fast as long as eight months due to non availability of prey.
- II. Polar bears always give birth to triplets.
- Which of the assumptions given above is/ are true?

(a) I only (b) II only (c) Both I and II (d) Neither I nor II

Q20. Female polar bears give birth during

- (a) Spring
- (b) Summer
- (c) Autumn
- (d) Winter

Q21. Mother bear

- (a) Takes sides over cubs
- (b) Lets the cubs fend for themselves
- (c) Feeds only their favourites
- (d) Sees that all cubs get an equal share

Q22-25. Choose the word that best defines the given phrases:-

Q22.	A Curi (a) (c)	tain Lecture To speak plai Private scoldi	nly ng of a	husband by his	s wife	(b) (d)	Vulgar Ideas Hate others	
Q23.	Squar (a) (c)	e pegs in round A genuinely h People in the	d holes elpful p wrong j	erson jobs	(b) (d)	A Clever pers To be perplex	on æd	
Q24.	In wea (a) (c)	al and woe By hook or cr in prosperity a	ook and adv	ersity	(b) (d)	During illness During the op	eration	
Q25.	Globe (a) (c)	trotters People again: Intelligent mir	st globa ids	l philosophy	(b) (d)	People indulg Travellers arc	ing in treache	ry
Q26-2	9. Ch	oose the corre	ectly sp	elt word:-				
Q26.	(a)	Konnoisseur	(b)	Conoisseur	(c)	Connoisseur	(d)	Konoisseur
Q27.	(a)	Munifisent	(b)	Muneficent	(c)	Munificent	(d)	Munificient
Q28.	(a)	Equanimity	(b)	Equannimity	(c)	Equanimmist	y (d)	Equinimity
Q29.	(a)	Vetarinary	(b)	Veteninary	(c)	Veterinary	(d)	Vetniary
Q30-6 Q30.	5. Ch A, B a	oose the most nd C can do a	appro	priate answer: f work in 20, 30	-) and 6() days respectiv	vely. In how m	any days can A

do the work if he is assisted by B and C on every third day?

(a) 12 days (b) 15 days (c) 16 days (d) 18 days

Q31.	A mar	n can row 9 $^{1}/_{3}$	Kmph	in still water ar	nd finds	that it ta	akes him thrice	as muc	ch time to row up
	(a)	$3^{1}/_{3}$ Kmph	(b)	$3^{1/9}$ Kmph	(C)	$4^{2}/_{3}$ Kr	nph	(d)	$41/_3$ Kmph
Q32.	The s	peed of a boat	in still w	vater is 10 Kmp	oh. If it c	an trave	el 26 Km down	stream	and 14 Km
	(a)	2 Kmph	(b)	2.5 Kmph	(C)	3 Kmp	h	(d)	4 Kmph
Q33.	lf a su (a)	m becomes do 1 ½ times	uble in ⁷ (b)	16 years, how 1 $^{1}/_{3}$ times	many tir (c)	nes will 1 ³/ ₄	it be in 8 years times	s? (d)	1 ¹ / ₄ times
Q34.	In how Rs 926	many years w	ill a sun	n of Rs 800 at	10% pei	r annum	n compounded	semi-a	nnually become
	(a)	1 ¹ / ₃	(b)	1 ¹ / ₂	(c)	$2^{1/3}$		(d)	$2^{1}/_{2}$
Q35.	A sells percer	s 2 TV sets, on tage in the over 2 25%	one at a erall trar	a loss of 15% nsaction? 3%	and	nother a	at a profit of	15%. Fi	ind the loss/gain
Q36.	A man	travelled from	a point	A to B at the r	ate of 25	5 Kmph	and walked ba	ck at th	e rate of 4
Q 00.	Kmph.	If the whole jo	urney to	bok 5 hrs 48 m	inutes, t	he dista	ance between A	A and B	is 51.6 Km
0.07	(a)		(U) .,	24 MII	(0)	20 Kill		(u)	51.0 Kill
Q37.	A Trail telegra	n travelling at a aph post in 5 se	econds.	n speed clears The speed of t	a platfo he train	rm 200 is	m long in 10 s	econas	and passes a
	(a)	36 km/h	(b)	39 km/h	(c)	72 km/	/h	(d)	78 km/h
Q38.	The pr family	ice of sugar inc reduce the cor	creases	by 20% due to	the fes	tive sea re is no	ason. By what p change in the	percenta expend	age should a iture?
	(a)	20%	(b)	18 ¹ / ₃ %	(c)	16 ² / ₃ %	6 6	(d)	16 ¹ / ₃ %
Q39.	A's sa	lary is 20% low	er than	B's salary, whi	ch is 15	% lowe	r than C's sala	ry. By h	ow much
	percer (a)	44.05%	more th (b)	45.05%	(c)	46.05%	6	(d)	47.05%
Q40.	The av	verage weight o	of 5 mer	n is increased b	by 2 Kg	when o	ne of the men	whose v	veight is 60 Kg is
	replace (a)	ed by a new m 50 Kg	an. The (b)	65 Kg	new mar (c)	n is 68 Kg		(d)	70 Kg
Q41.	A and	B can do a pie	ece of w	ork in 18 days;	Band	C can d	lo it in 24 days,	A and	C can do it in 36
	days. I (a)	48 days	ays в аі (b)	45 days	(c)	κ <i>?</i> 28 ⁴ / ₅	days	(d)	144 days
Q42.	The o	pposition party	status i	is accorded to	a politic	al party	in the Lok Sab	ha only	if it captures at
	(a) 5	5% Seats	(b) 1	0% Seats	(c) 1	5% Sea	ats	(d)	20% Seats
Q43.	Who a	mongst the foll	owing is	s the author of	the boo	k 'A Bei	nd in the River	?	
	(a) (c)	Kiran Desai	al		(d) (d)	Anita E	Desai		
Q44.	'Long '	Walk to Freedo	om' is a	book written by	/ "、				
	(a) (c)	Sonia Gandhi Nelson Mande	la		(b) (d)	LK Adv Benazi	vani ir Bhutto		
Q45.	Which	sports persona	ality has	been awarded	d the ho	norary r	rank of Group (Captain	by the IAF?
	(a) (c)	Kapil Dev Saina Nehwal	-		(b) (d)	Sania Sachin	Mirza Tendulkar	-	

Q46.	Which (a)	country amono Sierra Leone	g the fol (b)	lowing has bee Liberia	en decla (c)	red Ebola-free Nigeria	by WH (d)	O? Guinea
Q47.	How ma (a)	any Gold med 10	als did (b)	India win in the 11	Incheo (c)	n Asian Games 12	s held ir (d)	n Oct 2014? 8
Q48.	Who ha (a) (c)	as been appoir Arvind Mayara Kaushik Basu	nted as am	the new Finand	ce Secr (b) (d)	etary of India? Rajiv Mehrish Dinesh Gupta	i	
Q49.	Which a (a)	among the foll Agni II	owing is (b)	s India's first lo Prithvi	ng rang (c)	e subsonic crui Dhanush	ise miss (d)	sile? Nirbhay
Q50.	The bra (a)	anch of scienc Cytology	e that s (b)	tudies cells is c Entomology	alled (c)	Homoplastic	(d)	Hormonology
Q51.	How ma Assemt	any Vice Pres oly?	idents a	re elected at th	ne start	of its each regu	ular ses	sion of UN General
	(a)	ININE	(D)	Fifteen	(C)	IWO	(a)	I wenty one
Q52.	The hig One of (a) (c)	hest civilian a them is Nelso Marshal Tito Khan Abdul G	ward of n Mand ihaffar ł	India 'Bharat F ela. The other Khan	Ratna' h is (b) (d)	as been award Mikhail Gorba Abdul Wali Kh	ed to o ichev nan	nly two foreigners so far.
Q53.	Sir CV phenon	Raman was a nenon of radia Scattering	warded tion?	Nobel Prize fo	r his wo	ork connected w	vith whic	ch of the following
Q54.	In whick	h city is heado	(b) Juarters	of Asian Deve	lopmen	t Bank located	(d)	
Q55.	(a) (a) (b) (c) (d)	issile is Submarine lau Inter Continer Medium Rang Short Range I	unched Ital Balli Je Ballis Ballistic	Ballistic Missile istic Missile (IC tic Missile (MR Missile (SRBM	(SLBN BM) BM) 1)	1)	(0)	Canana
Q56.	India ag one of t (a)	greed to UN C the following re UNCCT	hief Baı ecently. (b)	n Ki-Moon's off UNICEF	er to re	main as a merr UNEP	nber of t (d)	he advisory board of UNCTAD
Q57.	Kaziran (a) (c)	iga National P One-horned F Swamp Dears	ark is fa Rhinos s (Bara:	amous for singha)	(b) (d)	Tigers Elephants		
Q58.	Who wa (a) (c)	as the first Ind Milkha Singh Karnam Malle	ian to w shwari	rin an individua	l medal (b) (d)	in Olympics? PT Usha KD Jadhav		
Q59.	Who ar boycott (a) (c)	nong the follov ed the Simon Maulana Abul Lala Lajpat Ra	wing wa Commi Kalam ai	is the Congress ssion? Azad	s Presic (b) (d)	lent at Madras MA Ansari Subhash Cha	Sessior ndra Bo	n of 1927 when it
Q60.	Why dia (a) (b) (c) (d)	d Kalinga prov Ashoka anne It was the star Ashoka becar It enabled Ma	re to be ked Kali rting poi ne a ze uryan E	a turning point nga nt of the expar alous Buddhist mpire to reach	in the li nsion of its clim	ife of Ashoka? his empire ax		
Q61.	Which (a)	of the following Crime Branch	g wings	was not part o	f the es (b)	pionage systen Special Branc	n descri :h	bed by Kautilya?

(c) Political Branch (d) None of these

Q62.	Alaudo (a) (c)	lin Khalji did no Siri Fort Hauz-i-Alai	ot build		(b) (d)	Tomb of Jalalı Jamaat Khana	uddin Masjio	ł
Q63.	Which (a)	of the following Nanda	g dynas (b)	ties was ruling Maurya	over No (c)	orth India at the Sunga	time o (d)	f Alexander's invasion? Kanva
Q64.	Which (a)	of the following Agni-I	g Interc (b)	ontinental Ballis Agni-II	stic Mis: (c)	siles (ICBMs) is Agni-IV	under (d)	development in India? Agni-VI
Q65.	Who a held at (a) (c)	mong the follov t Incheon, Sout Mary Kom of I Ning Zetao of	ving wa h Korea ndia China	as adjudged as a?	the Mos (b) (d)	st Valuable Play Kosuke Hagin None of these	ver of ti o of Ja	ne 17 th Asian Games pan
Q66-70 mark.	0 In ea	ch of the follo	wing c	uestions find	out the	e alternative w	hich w	ill replace the question
Q66.	East : (a) (c)	Orient :: ?:? North : Polar South : Capric	orn		(b) (d)	North : Tropic West : Occide	nt	
Q67.	Ignom (a) (c)	iny : Disloyalty Death : Victor Fame : Herois	:: ?:? y m		(b) (d)	Martyr : Man Destruction : \	/ictory	
Q68.	Loath (a) (c)	: Coercion :: ?:' Detest : Cares Irate : Antagor	? ssing nism		(b) (d)	Irritate : Cares Reluctant : Pe	sing rsuasio	n
Q69.	Trilogy (a) (c)	: Novel :: ?:? Rice : Husk Serial : Episoc	de		(b) (d)	Milk : Cream Gun : Cartridg	е	
Q70.	Wife : (a)	Marriage :: ?:? Bank : Monev			(b)	Nationality : C	itizensł	nip

(c) Service : Qualification (d) Attendance : Register

Q 71-75. Each of these questions given below contains three elements. These elements may or may not have some inter-linkage. Each group of elements may fit into one of these diagrams at (a), (b), (c) or (d). You have to indicate the group of elements which correctly fits into the diagrams.

Q71. Which of the following diagrams indicates the best relation between Doctors, Human Beings and Married People?



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Q75. Which of the following diagrams indicates the best relation between Males, Cousins and Nephews?



Q76-80. In each of the following questions, select a figure from amongst the four alternatives, which when placed in the blank space of figure (X) would complete the pattern.

Q76. (X) (a) (b) (c) (d) Q77. 2 (X) (a) (b) (C) (d) Q78. (X) (a) (b) (d) (c) Q79. (X) (a) (d) (b) (c)

Q80.



Q81-85. Each of the following questions consists of five figures marked 1,2,3,4 and 5 called the Problem Figures followed by four other figures marked a, b, c and d called the Answer Figures. Select a figure from amongst the Answer Figures which will continue the same series as established by the five Problem Figures.



Q86-90. In each of the following questions, four words have been given out of which three are alike in some manner, while the fourth one is different. Choose the word which is different from the rest.

Q86.	(a)	Othello	(b)	King Lear	(c)	Oliver Twist	(d) Macbeth
Q87.	(a)	Nimitz	(b)	Yamamoto	(c)	Nelson	(d) Montgomery
Q88.	(a)	Blaze	(b)	Glint	(c)	Simmer	(d) Shimmer
Q89.	(a)	Aravalli hills	(b)	Shivalik hills	(c)	Mole hills	(d) Satpura hills
Q90.	(a)	Beaver	(b)	Alpaca	(c)	Walrus	(d) Koala

Q91-95. In each problem, out of the four figures marked (a) (b) (c) and (d) three are similar in a certain manner. However, one figure is not like the other three. Choose the figure which is different from the rest.





Q96-100. Each of the following questions consists of two sets of figures. Figures 1, 2, 3 and 4 constitute the Problem Set while figures a, b, c and d constitute the Answer Set. There is a definite relationship between figures (1) and (2). Establish a similar relationship between figures (3) and (4) by selecting a suitable figure from the Answer set that would replace the question mark (?) in fig.(4).

Q96.

(a)

(b)

(c)

(d)



TIME ALLOTTED – 2HRS

INSTRUCTIONS FOR CANDIDATES

- 1. Total No Of Questions-100. Each Question is of three marks.
- 2. One mark will be deducted for every wrong answer.
- 3. No mark will be deducted for un-attempted questions.
- 4. Do not write on the Question Paper or make any mark on it.

Q1-3. Read the following passage carefully and answer the questions given below it:-

Recently, a newspaper article mourned the total disappearance of the common house sparrow. This was a comment on the city's perceptible move towards edging out the flora and fauna of the city. In the rapid urbanization, multi-storied apartments grew and large scale felling of trees became necessary. Last week, however, seven pairs of these sparrows were spotted in a suburb. Possibly the greenery of this place has created a new habitat for these birds which like their proximity to human beings, and have made a comeback. A systematic development of trees and shrubs all over the city could woo the absentee house sparrow to our midst.

- Q1. In the passage the term "urbanisation" has been used to refer to
 - (a) the destruction of the greenery in the city
 - (b) construction of concrete structures on a large scale
 - (c) a change over from the rural life to the city life
 - (d) the movement of people from villages to cities
- Q2. The phrase "absentee house sparrow" refers to
 - (a) the sparrow that makes infrequent visits
 - (b) the sparrow that has forgotten its habitat
 - (c) the sparrow that has gone away from the urban areas
 - (d) the sparrow that has become extinct

Q3. According to the passage, the birds have made a comeback to the suburb because they

- (a) have been hunted down by the village people
- (b) Love to be amidst human beings
- (c) get food only where human beings live
- (d) they have been deliberately brought back by biologists

Q4-9 Select the most appropriate word from the options against each number:-

Watermelons ...(4)... to India by the 4th century A.D. Sushruta, the great Indian physician,(5)...wrote Sushruta Samhit, mentions that watermelons were grown ...(6).. the banks of the river Indus.(7)....are also mentioned in ancient books. Sushruta calls it as Kalinda or Kalinga (hence Kalingad in Marathi). It was...(8)..to China in the 10th or 11th century and ...(9)... it is grown throughout the tropics.

Q4.	(a)	came	(b)	go	(c)	arrived	(d)	started
Q5.	(a)	did	(b)	when	(c)	certainly	(d)	who
Q6.	(a)	above	(b)	outside	(c)	from	(d)	along
Q7.	(a)	it	(b)	they	(C)	some	(d)	that
Q8.	(a)	took	(b)	gave	(c)	taken	(d)	take
Q9.	(a)	also	(b)	though	(c)	now	(d)	tomorrow

Q10-13. Choose the word which is nearest in meaning to the given word:-

Q10. Embellish

(a)	Employ	(b)	Arrange
(c)	Decorate	(d)	Design

Q11. Damp Squib

- (a) Insignificant happening (b) An old technique
- (c) Unsuccessful attempt (d) Short, shrill cry

					2					
Q12.	Sagac (a)	ious Stupid	(b)	Truthful	(c)	Lustful	(d)	Discer	ning	
Q13.	Pontifi (a) (c)	cate To speak auth To act clumsil	noritativ y	ely	(b) (d)	To raise to higher office To constitute				
Q14-1	7. Choo	ose the word w	vhich is	s nearly oppos	site in n	neaning to the	given	word:-		
Q14.	Parsin (a)	nonious Generous	(b)	Selfish	(c)	Religious	(d)	Hered	itary	
Q15.	Vindic (a)	ate Censure	(b)	Favour	(c)	Indicate	(d)	Eradic	ate	
Q16.	Spora (a)	dic Rare	(b)	Frequent	(c)	Sharp	(d)	Coord	inated	
Q17.	Exone (a)	rate Reject	(b)	Contract	(c)	Accuse	(d)	Admit		
Q18-2	1. Choo	ose the word t	hat bes	st defines the g	given p	hrases:-				
Q18.	Cloak (a) (c)	and dagger To fight to a fi To end the ho	nish stility		(b) (d)	To get into un Like a spy	expecte	ed troub	le	
Q19.	To be at the end of one's tether (a) To feel offended (c) To have no resources left			(b) (d)	To draw mora To think deep	l attenti ly	on			
Q20.	All ago (a) (c)	ll agog I) Work helplessly I) In a state of excitement			(b) (d)	Lose conscio Fall flat	usness			
Q21.	Espirit (a)	de Corps Bravery	(b)	Loyalty	(c)	Subordination		(d)	Unity	
Q22-2 Q22.	5. Cho (a)	oose the corre Omminous	ctly sp (b)	elt word:- Omineous	(c)	Ominous		(d)	Omenous	
Q23.	(a)	Hindrance	(b)	Hinderance	(c)	Hindrence		(d)	Hinderence	
Q24.	(a)	Perjery	(b)	Perjury	(c)	Purjury		(d)	Perjary	
Q25.	(a)	Reminiscene	(b)	Reminiscence	(c)	Reminicence		(d)	Remeniscence	
Q26-2	9. Whi	ch word or wo	ords ex	plains the mea	ning o	f the following	idiom:	s:-		
Q26.	A blue (a) (c)	stocking Stocking whic An unreliable	h is blu person	e in colour	(b) (d)	A clean cheat a woman havi and learning	ng litera	ary taste	es	
Q27.	Yeoma (a) (c)	Yeoman's service (a) lip-service (c) to play god father			(b) (d)	to serve like a efficient or use	slave eful helj	C		
Q28.	8. Lay bare (a) Expose (c) Destroy				(b) (d)	Take off all clo Exploit	othes			
Q29.	A wolf (a) (c)	in sheep's clot A hypocrite A coward	hing		(b) (d)	A wolf in wool A proud man	en cloth	nes		

Q30-6	5. Choose the most appropriate answer	:-	
Q30.	The national emblem, viz four lions standir following:-	ng back	to back is an adaptation from which of the
	(a) Sarnath lions (c) Khajurao	(b) (d)	Gir lions Ajanta caves
Q31.	Who among the following is not a recipient (a) Ashapurna Devi (c) Raghupati Sahay	t of the ' (b) (d)	Bharatiya Jnanpith' Award? MF Hussain VK Gokak
Q32.	Global 500 awards are given for outstandir (a) Population Control (c) Campaigning against AIDS	ng achie (b) (d)	evement in which of the following fields? Elimination of illiteracy Protection of environment
Q33.	Pulitzer Prize is awarded for the outstandir (a) Science and Technology (c) Literature and Journalism	ng work (b) (d)	in the field of Environmental Studies International Understanding
Q34.	Who was the founder of Nanda dynasty? (a) Bimbisara (c) Ajatasatru	(b) (d)	Mahapadma Nanda Dhana Nanda
Q35.	 Which of the following books is written by <i>i</i> (a) Mankind and Mother Earth (c) The Future of Freedom 	Arnold T (b) (d)	oynbee? Tom Sawyer The Moon's Last Sigh
Q36.	The presidency of the UN Security Council (a) Every 6 months (c) Every 3 months	l rotates (b) (d)	among the Council Members Every year Every month
Q37.	Who were the contemporaries of the Gupta (a) Chola (c) Satavahanas	a Kings (b) (d)	in the south? Rashtrakutas Vakatkas
Q38.	Who was the person behind conversion of regional power?	East In	dia Company from a trading company into a
	(c) Lord Dalhousie	(d) (d)	Lord Wellesley
Q39.	Who inscribed the name of Khalifa of Bagh (a) Ala-ud-din Khilji (c) Qutub-ud-in Aibak	ndad on (b) (d)	his coins? Iltutmish Balban
Q40.	Who among the following Sultans of Delhi (a) Balban	assume (b)	ed the title, 'Sikandar-i-Sani? Ala-ud-din Khilji
	(c) Muhammad-bin-Tughlaq	(d)	Sikander Lodhi
Q41.	 UN General Assembly recently declared 2 (a) International Youth Day (c) International Day of Yoga 	1st June (b) (d)	e as International Literacy Day International Day of Peace
Q42.	The member countries of NAFTA are (a) USA, Canada and Mexico (c) USA and Canada	(b) (d)	Canada and Mexico Argentina and Brazil
Q43.	Sandeep Sejwal won the Bronze medal in (a) 200m backstroke (c) 50m breaststroke	2014 As (b) (d)	sian Games in which of the following events? 200m freestyle 50m butterfly
Q44.	The Indian space programme began in (a) 1961 (b) 1962	(c)	1965 (d) 1969

Q45.	'Bachp	oan Bachao An	dolan (E	3BA)', an orgar	nisation	to protect the r	rights of	children was foun	ded
	by (a) (c)	Amir Khan Om Prakash (Gurjar		(b) (d)	Kailash Satya Santa Sinha	rthi		
Q46.	Manga (a)	alyan, Mars Orb Jan 2013	oiter Mis (b)	sion (MOM) wa Oct 2012	as laun (c)	ched in Oct 2013	(d)	Nov 2013	
Q47.	"Ruhr (a)	of India" known Uttar Pradesh	for its i (b)	rich coal depos Jharkhand	its is in (c)	the State of West Bengal	(d)	Bihar	
Q48.	Which	of the following	g Subso	onic missiles, te	est fired	in October 201	4 is cor	nsidered India's an	swer
	to Ame (a) E	erica's Tomaha Brahmos Mk-2	wk miss (b)	sile Prahaar	(c) N	irbhay	(d)	Agni-V	
Q49.	Who a 2014?	among the follo	owing v	von the World	Billiard	ls Championsh	nip held	in England in O	ctober
	(a) (c)	Peter Gilchrist Saurav Kotha	: ri		(b) (d)	Pankaj Advan None of these	ii Ə		
Q50.	Which	country will ho	st the X	XXI Olympic G	ames i	n 2016?			
	(a) (c)	Rio de Janeiro Tokyo, Japan	o, Brazil		(d) (d)	Chicago, USA Doha, Qatar	N		
Q51.	The bo	ook, "A China P	assage	' was written b	y (L)				
	(a) (c)	MJ Akbar Anees Jung			(d) (d)	Jagmonan John Kenneth	Galbra	ith	
Q52.	A can goes a	do a piece of w way. In how ma	ork in 2 any day	0 days and B i vs will A finish t	n 25 da he worł	ys. They work	togethe	r for 5 days and th	en B
	(a)	11 days	(b)	9 days	(C)	20 days	(d)	21 days	
Q53.	Two tr speeds (a)	ain A & B each s are 50 Kmph 28 Sec	66 met and 30 (b)	ers long run pa Kmph respecti 28.46 Sec	arallel to vely. In (c)	each other in what time A wi 53.46 Sec	the sarr ill comp (d)	ne direction. Their letely pass B. 23.76 Sec	
Q54.	A train	77.5 m in leng	th is rur	nning at the rat	e of 65	Kmph. Find the	e time ta	ken by the train to	pass
	the ma (a)	an walking in the 2.5 Sec	e same (b)	direction as th 4.5 Sec	e train (c)	@ 3 Kmph. 6.5 Sec	(d)	8 Sec	
Q55.	Ram c minute	an row 7½ Km to row to a pl	ph in sti ace and	ill water. If in a d back. how fai	river ru	nning at 1.5 Kn blace?	n an hoi	ur, it takes him 50	
	(a)	3.5 Km	(b)	3 Km	(c)	4.5 Km	(d)	5 Km	
Q56.	A moto covers (a)	orboat with spe the distance ir 4	ed 15 K 1 4 hour (b)	mph in still wa s and 30 minu 5	ter goes tes. The (c)	s 30 Km downs speed of the s 6	stream a stream i (d)	nd comes back. It n Km/h is? 10	
Q57.	Zinc a	nd copper are r	nelted t	ogether in the	ratio 9:1	1. What is the	weiaht	of the melted mixtu	ure. if
	28.8 kg	g of zinc has be	en con	sumed in it?	(c)	64 Ka	(d)	70 Kg	
059		bia gooda 20%	(b)	or then D and	(U)	or ity		h perceptore in C'	
Q58.	goods	cheaper / dear	er than	B.	20% de			n percentage is C s	5
050	(a) The second	33.33%	(b)	50%	(C)	45.85%	(d)	None of these	
Q59.	1 ne av 1. Wha	erage of 6 obs at will be the 7 th	ervatior observ	ration?	/ ODSE	rvation is inclue	ded, the	e average is reduce	ea by
	(a) 4		(b)	5	(c)	6	(d)	7	
Q60.	If the in find the	ncomes of Ram e ratio of their s	n & Shy avings,	am are in the r given that Shy	atio of 3 /am sav	3:4 and their ex res a third of his	penditu s incom	res in the ratio of 4 e. 13:15	:5,
	(4)	10.10	(0)	10.20	(\mathbf{U})	10.20	(u)	10.10	

Q61.	The su	m of ages of	4 childrer	h born at the	interval o	f 2 years is 52	. What is	s the age	of the oldest
	child?								
			<i></i> .						

- (a) 10 years (b) 12 years (c) 14 years (d) 16 years
- Q62. A certain sum under compound interest, compounded annually, amounts to Rs. 5500/- in 5 years and Rs. 6050/- in 6 years. What is the rate of interest?
 (a) 12 ½ %
 (b) 15%
 (c) 20%
 (d) 10%
- Q63. Rs. 800 becomes Rs. 956 in 3 years at a certain rate of simple interest. If the rate of interest is increased by 4%, what amount will Rs. 800 becomes in 3 years?
 (a) Rs 1020.80 (b) Rs 1025 (c) Rs 1052 (d) Rs 1000
- Q64. A sum of money lent out at simple interest amounts to Rs 720 after 2 years and to Rs 1020 after a further period of 5 years. The sum is (a) Rs 500 (b) Rs 600 (c) Rs 700 (d) Rs 750
- Q65. Present age of X and Y are in the ratio 7:5 respectively. Four years hence, the ratio of their ages will become 11:9 respectively. What is the present age of Y?
 (a) 1 year
 (b) 7 year
 (c) 5 year
 (d) None of these

Q 66-70. Each of these questions given below contains three elements. These elements may or may not have some inter-linkage. Each group of elements may fit into one of these diagrams at (a), (b), (c) or (d). You have to indicate the group of elements which correctly fits into the diagrams.

Q66. Which of the following diagrams indicates the best relation between Biology, Zoology and Physics?



Q67. Which of the following diagrams indicates the best relation between Stamp, Pen and Chalk?



Q68. Which of the following diagrams indicates the best relation between Singers, Athletes and Girls?



Q69. Which of the following diagrams indicates the best relation between Teachers, Women and Doctors?



Q70. Which of the following diagrams indicates the best relation between Clothes, Flowers and White?



Q71-75 In each of the following questions find out the alternative which will replace the question mark ~ ~

IIIC	n,	•
<u> </u>		

Q71.	Cereb (a) (c)	rum : Brain :: ?:? Aorta : Hand Ventricle : Heart	(b) (d)	Ligament : Blood Country : Universe
Q72.	Monur (a) (c)	nent : Cenotaph :: ?:? Orifice : Opening Protect : Protocol	(b) (d)	Guide : Follower Sponsor : Cleave
Q73.	Meado (a) (c)	ow : Sheep :: ?:? Stable : Horse Grass : Grasshopper	(b) (d)	Hay : Insect Pasture : Cattle
Q74.	Sadist (a) (c)	: Injury :: ?:? Opportunist : Generosity Dentist : Teeth	(b) (d)	Priest : Church Thief : Robbery
Q75.	Lecher (a) (c)	rous : Carnal :: ?:? Virile : Feeble Impede : Begin	(b) (d)	Diatribe : Abuse Sunder : Link

Q76-80 In each of the following questions, four words have been given out of which three are alike in some manner, while the fourth one is different. Choose the word which is different from the rest.

Q76.	(a)	Niger	(b)	Suez	(c)	Mississippi	(d)	Colorado
Q77.	(a)	Bang	(b)	Hiss	(c)	Whistle	(d)	Wink
Q78.	(a)	Gold	(b)	Silver	(c)	Bronze	(d)	Iron
Q79.	(a)	Mendicant	(b)	Ascetic	(c)	Pious	(d)	Hermit
Q80.	(a)	Bardoli	(b)	Bhadravati	(c)	Porbandar	(d)	Champaran

Q81-85. In each of the following questions, select a figure from amongst the four alternatives, which when placed in the blank space of figure (X) would complete the pattern. Q81.



Q82.



Q83.



Q84.



Q85.



Q86-90. Each of the following questions consists of five figures marked 1,2,3,4 and 5 called the Problem Figures followed by four other figures marked a, b, c and d called the Answer Figures. Select a figure from amongst the Answer Figures which will continue the same series as established by the five Problem Figures.



Q91-95. Each of the following questions consists of two sets of figures. Figures 1, 2, 3 and 4 constitute the Problem Set while figures a, b, c and d constitute the Answer Set. There is a definite relationship between figures (1) and (2). Establish a similar relationship between figures (3) and (4) by selecting a suitable figure from the Answer set that would replace the question mark (?) in fig (4).



Q96-100. In each problem, out of the four figures marked (a) (b) (c) and (d) three are similar in a certain manner. However, one figure is not like the other three. Choose the figure which is different from the rest.

Q96.



AFCAT Model Question Paper-IV

INSTRUCTIONS FOR CANDIDATES

TIME ALLOTTED - 2HRS

- Total No Of Questions-100. Each Question is of three marks. 1.
- 2. One mark will be deducted for every wrong answer.
- 3.

No mark will be deducted for un-attempted questions. Do not write on the Question Paper or make any mark on it. 4.

Q1-4. Choose the word which is nearest in meaning to the given word:-

Q1.	Sagac (a)	ious Stupid	(b)	Truthfu	ıl	(c)	Lustful			(d)	Discerning
Q2.	Pontifie (a) (c)	cate To speak auth To act clumsil	noritativ y	ely		(b) (d)	To raise to higher office To constitute				
Q3.	Embel (a) (c)	lish Employ Decorate				(b) (d)	Arrang Desigr	je 1			
Q4.	Damp (a) (c)	Damp Squib a) Insignificant happening c) Unsuccessful attempt					An old technique Short, shrill cry				
Q5-8.	Choose	e the word tha	t best o	defines	the giv	en phra	ases:-				
Q5.	All ago (a) (c)	g Work helpless In a state of e	sly xciteme	ent		(b) (d)	Lose c Fall fla	onsciou t	usness		
Q6.	Espirit (a)	de Corps Bravery	(b)	Loyalty	ý	(c)	Suboro	dination		(d)	Unity
Q7.	Cloak (a) (c)	ak and dagger To fight to a finish To end the hostility					To get Like a	into un spy	expecte	ed troub	le
Q8.	To be (a) (c)	at the end of or To feel offend To have no re		(b) (d)	To dra To thir	w mora ik deep	l attenti ly	on			
Q9-12 Q9.	. Choo (a)	se the correct Hindrance	ly spel ⁱ	t word: (b)	- Hinder	ance	(c)	Hindre	ence	(d)	Hinderence
Q10.	(a)	Perjery		(b)	Perjur	y	(c)	Purjur	y	(d)	Perjary
Q11.	(a)	Reminiscene		(b)	Remin	iscence	e (c)	Remin	icence	(d)	Remeniscence
Q12.	(a)	Omminous		(b)	Omine	eous	(c)	Ominc	ous	(d)	Omenous
Q13-1	6. Choc	ose the word v	vhich is	s nearly	oppos	site in n	neaning	g to the	given	word:-	
Q13.	Sporad (a)	dic Rare	(b)	Freque	ent	(c)	Sharp		(d)	Coordi	inated
Q14.	Exone (a)	rate Reject	(b)	Contra	ict	(c)	Accuse	e	(d)	Admit	
Q15.	Parsim (a)	ionious Generous	(b)	Selfish	1	(C)	Religio	ous	(d)	Heredi	itary
Q16.	Vindica (a)	ate Censure	(b)	Favou	r	(c)	Indicat	e	(d)	Eradic	ate

Q17-19. Read the following passage carefully and answer the questions given below it:-

Recently, a newspaper article mourned the total disappearance of the common house sparrow. This was a comment on the city's perceptible move towards edging out the flora and fauna of the city. In the rapid urbanization, multi-storied apartments grew and large scale felling of trees became necessary. Last week, however, seven pairs of these sparrows were spotted in a suburb. Possibly the greenery of this place has created a new habitat for these birds which like their proximity to human beings, and have made a comeback. A systematic development of trees and shrubs all over the city could woo the absentee house sparrow to our midst.

Q17. According to the passage, the birds have made a comeback to the suburb because they

- (a) have been hunted down by the village people
- (b) Love to be amidst human beings
- (c) get food only where human beings live
- (d) they have been deliberately brought back by biologists

Q18. In the passage the term "urbanisation" has been used to refer to

- (a) the destruction of the greenery in the city
- (b) construction of concrete structures on a large scale
- (c) a change over from the rural life to the city life
- (d) the movement of people from villages to cities
- Q19. The phrase "absentee house sparrow" refers to
 - (a) the sparrow that makes infrequent visits
 - (b) the sparrow that has forgotten its habitat
 - (c) the sparrow that has gone away from the urban areas
 - (d) the sparrow that has become extinct

Q20-25 Select the most appropriate word from the options against each number:-

Watermelons ...(20)... to India by the 4th century A.D. Sushruta, the great Indian physician,(21)...wrote Sushruta Samhit, mentions that watermelons were grown ...(22)... the banks of the river Indus.(23)....are also mentioned in ancient books. Sushruta calls it as Kalinda or Kalinga (hence Kalingad in Marathi). It was...(24)..to China in the 10th or 11th century and ...(25)... it is grown throughout the tropics.

Q20.	(a)	came	(b)	go	(c)	arrived	(d)	started
Q21.	(a)	did	(b)	when	(c)	certainly	(d)	who
Q22.	(a)	above	(b)	outside	(c)	from	(d)	along
Q23.	(a)	it	(b)	they	(c)	some	(d)	that
Q24.	(a)	took	(b)	gave	(c)	taken	(d)	take
Q25.	(a)	also	(b)	though	(c)	now	(d)	tomorrow

Q26-29. Which word or words explains the meaning of the following idioms:-

Q26.	Lay b (a) (c)	are Expose Destroy	(b) (d)	Take off all clothes Exploit
Q27.	A wol (a) (c)	f in sheep's clothing A hypocrite A coward	(b) (d)	A wolf in woolen clothes A proud man
Q28.	A blue (a) (c)	e stocking Stocking which is blue in colour An unreliable person	(b) (d) and l	A clean cheat a woman having literary tastes earning
Q29.	Yeom (a)	an's service lip-service	(b)	to serve like a slave

(c)

to play god father

(d) efficient or useful help

		3		
Q30-6	5. Cho	oose the most appropriate answer:	-	
Q30.	Whicł (a) (c)	n country will host the XXXI Olympic (Rio de Janeiro, Brazil Tokyo, Japan	Games (b) (d)	in 2016? Chicago, USA Doha, Qatar
Q31.	The b (a) (c)	ook, "A China Passage' was written l MJ Akbar Anees Jung	oy (b) (d)	Jagmohan John Kenneth Galbraith
Q32.	Who (a) (c)	was the founder of Nanda dynasty? Bimbisara Ajatasatru	(b) (d)	Mahapadma Nanda Dhana Nanda
Q33.	Whicł (a) (c)	n of the following books is written by Mankind and Mother Earth The Future of Freedom	Arnold 7 (b) (d)	Foynbee? Tom Sawyer The Moon's Last Sigh
Q34.	The n follow (a) (c)	ational emblem, viz four lions standir ing:- Sarnath lions Khajurao	ng back (b) (d)	to back is an adaptation from which of the Gir lions Ajanta caves
Q35.	Who	was the person behind conversion of	East In	dia Company from a trading company into

- om a trading company into a regional power?
 - (a) Lord Warren Hastings Lord Clive (b) Lord Dalhousie (d) Lord Wellesley (c)

Who inscribed the name of Khalifa of Baghdad on his coins? Q36.

- Ala-ud-din Khilji Iltutmish (a) (b) Qutub-ud-in Aibak (d) Balban (c)
- Who among the following is not a recipient of the 'Bharatiya Jnanpith' Award? Q37.
 - Ashapurna Devi MF Hussain (a) (b)
 - (c) Raghupati Sahay (d) VK Gokak

Global 500 awards are given for outstanding achievement in which of the following fields? Q38.

- Population Control (b) Elimination of illiteracy (a) (d) Protection of environment (c) Campaigning against AIDS
- Who among the following Sultans of Delhi assumed the title, 'Sikandar-i-Sani? Q39.
 - Balban Ala-ud-din Khilji (a) (b)
 - Sikander Lodhi (c) Muhammad-bin-Tughlag (d)

Q40. UN General Assembly recently declared 21st June as International Youth Dav

International Literacy Day (b)

International Day of Yoga (c) (d) International Day of Peace

Q41. Pulitzer Prize is awarded for outstanding work in the field of

- Science and Technology **Environmental Studies** (a) (b) (c)
 - Literature and Journalism (d) International Understanding
- Q42. The presidency of the UN Security Council rotates among the Council Members
 - Every 6 months Every year (a) (b) (c)
 - Every 3 months Every month (d)
- Q43. The member countries of NAFTA are

(a)

- USA, Canada and Mexico (b) Canada and Mexico (a)
- USA and Canada (c) (d) Argentina and Brazil
- Q44. Who were the contemporaries of the Gupta Kings in the south?
 - Chola Rashtrakutas (a) (b) Satavahanas (d) Vakatkas (c)
- Q45. Sandeep Sejwal won the Bronze medal in 2014 Asian Games in which of the following events?
 - 200m backstroke (b) (a) (c)
 - 50m breaststroke (d)
- 200m freestyle 50m butterfly

Q46.	Manga (a)	alyan, Mars Orl Jan 2013	biter Mis (b)	ssion (MOM) w Oct 2012	as laun (c)	ched in Oct 2013	(d)	Nov 2013
Q47.	"Ruhr (a)	of India" knowi Uttar Pradesł	n for its n (b)	rich coal depos Jharkhand	sits is in (c)	the State of West Bengal	(d)	Bihar
Q48.	The In (a)	dian space pro 1961	ogramm (b)	e began in 1962	(c)	1965	(d)	1969
Q49.	'Bachp	oan Bachao Ar	ndolan (l	BBA)', an orgai	nisation	to protect the	rights of	f children was founded
	by (а) (с)	Amir Khan Om Prakash	Gurjar		(b) (d)	Kailash Satya Santa Sinha	rthi	
Q50.	Which	of the followin	g Subso	onic missiles, te	est fired	in October 201	I4 is co	nsidered India's answer
	(a) E	Brahmos Mk-2	(b)	Prahaar	(c) N	irbhay	(d)	Agni-V
Q51.	Who a	among the foll	owing v	won the World	Billiard	ls Championsh	nip helo	d in England in October
	(a) (c)	Peter Gilchris Saurav Kotha	st ari		(b) (d)	Pankaj Advar None of these	ni Ə	
Q52.	The su	um of ages of 4	l childre	n born at the ir	nterval c	of 2 years is 52.	. What i	s the age of the oldest
	(a)	10 years	(b)	12 years	(c)	14 years	(d)	16 years
Q53.	A certa and R	ain sum under s. 6050/- in 6 y	compou rears. W	Ind interest, co hat is the rate	mpound of intere	ded annually, a est?	mounts	to Rs. 5500/- in 5 years
054	(a) Rs 80	12 72 70 10 becomes Rs	(D) 956 in	3 vears at a ce	ertain ra	20% Ite of simple int	(u) erest li	the rate of interest is
QU-1.	increa (a)	sed by 4%, wh Rs 1020.80	at amou (b)	unt will Rs. 800 Rs 1025	becom (c)	es in 3 years? Rs 1052	(d)	Rs 1000
Q55.	A sum a furth (a)	of money lent er period of 5 y Rs 500	out at s years. T (b)	imple interest a he sum is Rs 600	amounts	s to Rs 720 afte Rs 700	er 2 yea (d)	rs and to Rs 1020 after Rs 750
Q56.	Prese	nt age of X and	d Y are i	n the ratio 7:5	respecti	vely. Four year	rs hence	e, the ratio of their ages
	will be (a)	come 11:9 res 1 year	pectivel (b)	y. What is the p 7 year	oresent (c)	age of Y? 5 year	(d)	None of these
Q57.	A can goes a	do a piece of v away. In how m	vork in 2 nany day	20 days and B i ys will A finish t	in 25 da the worl	ys. They work	togethe	er for 5 days and then B
058	(a) Two tr	iiuays ain A & B each	(U) 0.66 met	9 uays ters long run n	(C) arallel to	20 days	(U) the san	21 days
Q00.	speed (a)	s are 50 Kmph 28 Sec	and 30 (b)	Kmph respect 28.46 Sec	ively. In (c)	what time A w 53.46 Sec	ill comp (d)	pletely pass B. 23.76 Sec
Q59.	A train the ma	77.5 m in leng an walking in th	gth is ru	nning at the rat	e of 65 le train	Kmph. Find the @ 3 Kmph.	e time ta	aken by the train to pass
060	(a) Ram c	2.5 Sec $71/6$ Km	(D) Inch in st	4.5 Sec	(C)	0.5 Sec	(a) n an ho	8 Sec
QUU.	minute (a)	es to row to a p 3.5 Km	lace an (b)	d back, how fai 3 Km	r is the j (c)	place? 4.5 Km	(d)	5 Km
Q61.	A moto covers (a)	orboat with spe the distance i 4	ed 15 k n 4 hou (b)	۲۹۵ Kmph in still wa rs and 30 minu 5	ter goe: tes. The (c)	s 30 Km downs e speed of the s 6	stream a stream (d)	and comes back. It in Km/h is? 10
Q62.	Zinc a 28.8 k (a)	nd copper are g of zinc has b 58 Kg	melted een cor (b)	together in the sumed in it? 60 Kg	ratio 9: ⁻ (c)	11. What is the 64 Kg	weight (d)	of the melted mixture, if 70 Kg

Q63.	 A sells his goods 20% cheaper than B and 20% dearer than C. How much percentage is C's goods cheaper / dearer than B. 							
	(a)	33.33%	(b)	50%	(c)	45.85%	(d)	None of these
Q64.	The average of 6 observations is 12. If the 7 th observation is included, the average is reduced by 1. What will be the 7 th observation?							
	(a) 4		(b)	5	(c)	6	(d)	7
Q65.	If the ir find the (a)	ncomes of Ram e ratio of their s 10:15	n & Shy avings, (b)	am are in the r given that Shy 13:20	atio of 3 /am sav (c)	and their exp es a third of his 15:20	oenditu s incom (d)	res in the ratio of 4:5, e. 13:15
Q66-70 mark.	Q66-70 In each of the following questions find out the alternative which will replace the question mark.							
Q66.	Sadist (a) (c)	: Injury :: ?:? Opportunist : (Dentist : Teeth	Genero 1	sity	(b) (d)	Priest : Church Thief : Robber	ר יע	
Q67.	Lecher (a) (c)	ous : Carnal :: Virile : Feeble Impede : Begi	?:? n		(b) (d)	Diatribe : Abus Sunder : Link	Se	
Q68.	Cerebr (a) (c)	rum : Brain :: ?: Aorta : Hand Ventricle : Hea	? art		(b) (d)	Ligament : Blo Country : Univ	od erse	
Q69.	Monun (a) (c)	nent : Cenotapl Orifice : Open Protect : Proto	h :: ?:? ing ocol		(b) (d)	Guide : Follow Sponsor : Clea	ver ave	
Q70.	Meado (a) (c)	w : Sheep :: ?: Stable : Horse Grass : Grass	? hopper		(b) (d)	Hay : Insect Pasture : Cattl	е	
074 7						<u>.</u>		

Q71-75. In each of the following questions, select a figure from amongst the four alternatives, which when placed in the blank space of figure (X) would complete the pattern.

Q71.



Q72.



Q73.





Q75.



Q 76-80. Each of these questions given below contains three elements. These elements may or may not have some inter-linkage. Each group of elements may fit into one of these diagrams at (a), (b), (c) or (d). You have to indicate the group of elements which correctly fits into the diagrams.

(d)

Q76. Which of the following diagrams indicates the best relation between Biology, Zoology and Physics?



Q77. Which of the following diagrams indicates the best relation between Stamp, Pen and Chalk?



Q78. Which of the following diagrams indicates the best relation between Singers, Athletes and Girls?



Q79. Which of the following diagrams indicates the best relation between Teachers, Women and Doctors?



Q80. Which of the following diagrams indicates the best relation between Clothes, Flowers and White?



Q81-85. Each of the following questions consists of five figures marked 1,2,3,4 and 5 called the Problem Figures followed by four other figures marked a, b, c and d called the Answer Figures. Select a figure from amongst the Answer Figures which will continue the same series as established by the five Problem Figures.



Q86-90. Each of the following questions consists of two sets of figures. Figures 1, 2, 3 and 4 constitute the Problem Set while figures a, b, c and d constitute the Answer Set. There is a definite relationship between figures (1) and (2). Establish a similar relationship between figures (3) and (4) by selecting a suitable figure from the Answer set that would replace the question mark (?) in fig (4).

Q86. Q87. Q87.



Q91-95. In each problem, out of the four figures marked (a) (b) (c) and (d) three are similar in a certain manner. However, one figure is not like the other three. Choose the figure which is different from the rest.



Q96-100 In each of the following questions, four words have been given out of which three are alike in some manner, while the fourth one is different. Choose the word which is different from the rest.

Q96.	(a)	Mendicant	(b)	Ascetic	(c)	Pious	(d)	Hermit
Q97.	(a)	Bardoli	(b)	Bhadravati	(c)	Porbandar	(d)	Champaran
Q98.	(a)	Niger	(b)	Suez	(c)	Mississippi	(d)	Colorado
Q99.	(a)	Bang	(b)	Hiss	(c)	Whistle	(d)	Wink
Q100.	(a)	Gold	(b)	Silver	(c)	Bronze	(d)	Iron

TIME ALLOTTED – 2HRS

INSTRUCTIONS FOR CANDIDATES

- 1. Total Number of Questions-100. Each Question is of three marks.
- 2. One mark will be deducted for every wrong answer.
- 3. No mark will be deducted for un-attempted questions.
- 4. Do not write on the Question Paper or make any mark on it.

Q1-3. Read the following passage carefully and answer the questions given below it:-

In spring, polar bear mothers emerge from dens with three months old cubs. The mother bear has fasted for as long as eight months but that does not stop the young from demanding full access to her remaining reserves. If there are triplets, the most persistent stands to gain an extra meal at the expense of others. The smallest of the cubs forfeits many meals to stronger siblings. Females are protective of their cubs but tend to ignore family rivalry over food. In 21 years of photographing polar bears, I have only once seen the smallest of triplets survive till autumn.

Q1. Female polar bears give birth during

- (a) Spring
- (b) Summer
- (c) Autumn
- (d) Winter

Q2. Mother bear

- (a) Takes sides over cubs
- (b) Lets the cubs fend for themselves
- (c) Feeds only their favourites
- (d) Sees that all cubs get an equal share

Q3. With reference to the passage, the following assumptions have been made:-

- I. Polar bears fast as long as eight months due to non availability of prey.
- II. Polar bears always give birth to triplets.

Which of the assumptions given above is/ are true?

	(a)	I only	(b) I	l only	(c)	Both I and II	(d)	Neither I nor II
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Q4-9 Select the most appropriate word from the options against each number:-

As home entertainment, television is rapidly becoming more (<u>4</u>) than any other form. A news broadcast becomes more immediate when people (<u>5</u>) actually see the scene (<u>6</u>) question and the movement of the figures. Films could be viewed in the (<u>7</u>) of the home and a variety of shows are also available. One of the advantages of travel programmes is the (<u>8</u>) of faraway places which many viewers would not (<u>9</u>) see.

Q4.	(a)	interesting	(b)	popular	(c)	powerful	(d)	purposeful
Q5.	(a)	could	(b)	would	(c)	might	(d)	shall
Q6.	(a)	of	(b)	with	(c)	as	(d)	in
Q7.	(a)	surroundings	(b)	assistance	(c)	comfort	(d)	privilege
Q8.	(a)	glimpses	(b)	image	(c)	portrait	(d)	picture
Q9.	(a)	possible	(b)	rather	(c)	else	(d)	otherwise
Q10-13.		Choose the v	vord wł	nich is neares	t in mea	aning to the gi	ven wo	ord:-
Q10.	Intrans (a)	Authoritative	(b)	Impersonal	(c)	Strenuous	(d)	Unbending
Q11.	Intimid (a)	late Mislead	(b)	Misplace	(c)	Frighten	(d)	Demoralise
Q12.	Spora (a)	dic Epidemic	(b)	Whirling	(c)	Occasional	(d)	Stagnant
Q13.	Genes (a)	sis Style	(b)	Beainnina	(c)	Movement	(d)	Relevant

Q14-1 Q14.	7. Cho Malevo	cose the word	which	is nearly oppo	osite in	meaning to th	ne giver	n word:	:-
	(a)	Kindly	(b)	Vacuous	(c)	Ambivalent	(d)	Primiti	ive
Q15.	Purgat (a)	tory Reward	(b)	Celestial	(c)	Flawless	(d)	Proxin	nity
Q16.	Cleme (a)	ncy Corporal	(b)	Intolerance	(c)	Compromise	(d)	Sensil	bility
Q17.	Cajole (a)	Nestle	(b)	Secede	(c)	Bully	(d)	Moiste	en
Q18-2	1. Choo	ose the word t	hat bes	st defines the	given p	hrases:-			
Q18.	in wea (a) (c)	By hook or cro in prosperity a	ook and adv	ersity	(b) (d)	During illness During the operation			
Q19.	Globet (a) (c)	trotters People agains Intelligent mir	st globa ids	l philosophy	(b) (d)	People indulg Travellers aro	ing in tr und the	eacher world	у
Q20.	A Curtain Lecture (a) To speak plainly (c) Private scolding of a husband by			husband by his	s wife	(b) (d)	Vulgar Hate c	r Ideas others	
Q21.	Square pegs in round holes (a) A genuinely helpful person (c) People in the wrong jobs					A Clever person To be perplexed			
Q22-2	5. Cho	oose the corre	ctly sp	elt word:-		_ · · · /		(1)	_ ,
Q22.	(a)	Equanimity	(b)	Equannimity	(C)	Equanimmisty	/	(d)	Equinimity
Q23.	(a)	Vetarinary	(b)	Veteninary	(C)	Veterinary		(d)	Vetniary
Q24.	(a)	Konnoisseur	(b)	Conoisseur	(c)	Connoisseur		(d)	Konoisseur
Q25.	(a)	Munifisent	(b)	Muneficent	(c)	Munificent		(d)	Munificient
Q26-2	9. Whi	ch word or wo ,	ords ex	plains the mea	aning o	f the following	j idiom	S:-	
Q26.	in a jifi (a)	outstanding	(b)	Suddenly	(c)	In a fix		(d)	Appropriate
Q27.	Upto tl (a) (c)	he hilt Completely Upto the final	decisio	n	(b) (d)	Upto the mark None of these			
Q28.	Man o (a) (c)	f Letters Who writes to A politician	o many	letters	(b) (d)	An important person A literary person			
Q29.	Sangfi (a) (c)	roid Composure Changed Sud	ldenly		(b) (d)	Go on leave Make an atter	npt		
Q30-6	5. Cho	oose the most	approj	oriate answer:	-				
Q30.	Which (a)	country among Sierra Leone	g the fol (b)	lowing has bee Liberia	en decla (c)	ared Ebola-free Nigeria	by WH (d)	O? Guine	а
Q31.	How m (a)	nany Gold med 10	als did (b)	India win in the 11	Incheo (c)	n Asian Games 12	s held ir (d)	ו Oct 20 8	014?
Q32.	Who h (a) (c)	as been appoi Arvind Mayar Kaushik Basu	nted as am	the new Finan	ce Secr (b) (d)	etary of India? Rajiv Mehrish Dinesh Gupta	i		

Q33.	Which (a)	among the foll Agni II	owing is (b)	s India's first lo Prithvi	ng rang (c)	e subsonic cru Dhanush	ise miss (d)	sile? Nirbhay
Q34.	The br (a)	anch of science Cytology	e that s (b)	tudies cells is o Entomology	called (c)	Homoplastic	(d)	Hormonology
Q35.	How m	nany Vice Presi	dents a	are elected at th	ne start	of its each regu	ular ses	sion of UN General
	(a)	Nine	(b)	Fifteen	(c)	Two	(d)	Twenty one
Q36.	The hi	ghest civilian a	ward of n Mand	India 'Bharat F	Ratna' h is	as been award	led to o	nly two foreigners so far.
	(a) (c)	Marshal Tito Khan Abdul G	haffar ł	Khan	(b) (d)	Mikhail Gorba Abdul Wali Kh	ichev nan	
Q37.	Sir CV pheno	Raman was av menon of radia	warded tion?	Nobel Prize fo	r his wo	rk connected v	vith whi	ch of the following
038	(a) In whic	Scallenny	(u) adauar	Dimaction	(C) Nevelopr	nent Bank loca	(u) ted2	Polarisation
Q00.	(a)	Manila	(b)	Singapore	(c)	Bangkok	(d)	Jakarta
Q39.	K-15 n (a) (b) (c) (d)	nissile is Submarine lau Inter Continen Medium Rang Short Range I	unched Ital Ball Ie Ballis Ballistic	Ballistic Missile istic Missile (IC tic Missile (MR Missile (SRBM	e (SLBN 3BM) 3BM) 4)	1)		
Q40.	India a one of (a)	agreed to UN C the following re UNCCT	hief Bar ecently. (b)	n Ki-Moon's off UNICEF	fer to re (c)	main as a merr UNEP	nber of t (d)	he advisory board of UNCTAD
Q41.	Kazira (a) (c)	nga National P One-horned R Swamp Dears	ark is fa Rhinos 6 (Baras	amous for singha)	(b) (d)	Tigers Elephants		
Q42.	Who w (a) (c)	vas the first Ind Milkha Singh Karnam Malle	ian to w shwari	<i>i</i> in an individua	ll medal (b) (d)	in Olympics? PT Usha KD Jadhav		
Q43.	Who a	mong the follow	wing wa	s the Congres	s Presic	lent at Madras	Sessio	n of 1927 when it
	boycot (a) (c)	Maulana Abul Lala Lajpat Ra	Commi Kalam ai	Azad	(b) (d)	MA Ansari Subhash Cha	ndra Bo	ose
Q44.	 Why did Kalinga prove to be a turning point in the life of Ashoka? (a) Ashoka annexed Kalinga (b) It was the starting point of the expansion of his empire (c) Ashoka became a zealous Buddhist (d) It enabled Mauryan Empire to reach its climax 							
Q45.	Which (a) (c)	of the following Crime Branch Political Branc	g wings ch	was not part o	f the es (b) (d)	pionage systen Special Branc None of these	n descr :h :	ibed by Kautilya?
Q46.	Alaudo (a) (c)	din Khalji did no Siri Fort Hauz-i-Alai	ot build		(b) (d)	Tomb of Jalal Jamaat Khana	uddin a Masjio	t
Q47.	Which (a)	of the following Nanda	g dynas (b)	ties was ruling Maurya	over No (c)	orth India at the Sunga	e time o (d)	f Alexander's invasion? Kanva
Q48.	Which (a)	of the following Agni-I	g Interc (b)	ontinental Balli Agni-II	stic Mis (c)	siles (ICBMs) is Agni-IV	s under (d)	development in India? Agni-VI

Q49.	Who among the following was adjudged as the held at Incheon, South Korea? (a) Mary Kom of India (b	e Most Valuable Player of the	e 17 th Asian Games an
	(c) Ning Zetao of China (d	d) None of these	
Q50.	The opposition party status is accorded to a p least	political party in the Lok Sabh	a only if it captures at
	(a) 5% Seats (b) 10% Seats (c	c) 15% Seats (d) 20% Seats
Q51.	Who amongst the following is the author of the (a) Chetan Bhagat (b (c) Kiran Desai (d	e book 'A Bend in the River'? b) VS Naipaul d) Anita Desai	
Q52.	'Long Walk to Freedom' is a book written by (a) Sonia Gandhi (b (c) Nelson Mandela (d	o) LK Advani d) Benazir Bhutto	
Q53.	Which sports personality has been awarded th (a) Kapil Dev (b (c) Saina Nehwal (d	ne honorary rank of Group Ca b) Sania Mirza J) Sachin Tendulkar	aptain by the IAF?
Q54.	A man travelled from a point A to B at the rate Kmph. If the whole journey took 5 hrs 48 minu (a) 30 Km (b) 24 Km (c	of 25 Kmph and walked bac tes, the distance between A c) 20 Km (k at the rate of 4 and B is d) 51.6 Km
Q55.	A Train travelling at a uniform speed clears a p telegraph post in 5 seconds. The speed of the (a) 36 km/h (b) 39 km/h (c	olatform 200 m long in 10 sec train is c) 72 km/h (conds and passes a (d) 78 km/h
Q56.	The price of sugar increases by 20% due to th family reduce the consumption of sugar so that (a) 20% (b) $18^{1}/\%$ (c	the festive season. By what per- tat there is no change in the ex- c) $16^{2}/\%$ (ercentage should a kpenditure? (d) 16 ¹ / %
Q57.	A's salary is 20% lower than B's salary, which percent is C's salary more than A's salary? (a) 44.05% (b) 45.05% (c	is 15% lower than C's salary c) 46.05% (. By how much (d) 47.05%
Q58.	The average weight of 5 men is increased by 2	2 Kg when one of the men wl	hose weight is 60 Kg is
	replaced by a new man. The weight of the new (a) 50 Kg (b) 65 Kg (c	v man is c) 68 Kg ((d) 70 Kg
Q59.	A and B can do a piece of work in 18 days; B days. In how many days B alone can finish the	and C can do it in 24 days, A work?	and C can do it in 36
	(a) 48 days (b) 45 days (c	c) $28\frac{4}{5}$ days (d) 144 days
Q60.	A, B and C can do a piece of work in 20, 30 ar do the work if he is assisted by B and C on eve (a) 12 days (b) 15 days (c	nd 60 days respectively. In ho ery third day? :) 16 days (ow many days can A
061	(a) 12 aby (5) to day (6)	indo that it takes him thrice a	a much time to row up
QUI.	than as to row down the same distance in the (a) $3^{1}/_{3}$ Kmph (b) $3^{1}/_{9}$ Kmph (c)	river. The speed of the current $4^2/_3$ Kmph	nt is (d) $4^{1}/_{3}$ Kmph
Q62.	The speed of a boat in still water is 10 Kmph. upstream in the same time, the speed of the st	If it can travel 26 Km downst tream is	ream and 14 Km
	(a) 2 Kmph (b) 2.5 Kmph (d	c) 3 Kmph (d) 4 Kmph
Q63.	If a sum becomes double in 16 years, how ma (a) $1\frac{1}{2}$ times (b) $1\frac{1}{3}$ times (c	(x) ny times will it be in 8 years? (x) $1 \frac{3}{4}$ times (d) 1¹/₄times

- Q64. In how many years will a sum of Rs 800 at 10% per annum compounded semi-annually become Rs 926.10?
 - (a) $1^{1}/_{3}$ (b) $1^{1}/_{2}$ (c) $2^{1}/_{3}$ (d) $2^{1}/_{2}$
- Q65. A sells 2 TV sets, one at a loss of 15% and another at a profit of 15%. Find the loss/gain percentage in the overall transaction? (a) 2.25% (b) 3% (c) 4% (d) No profit, no loss

Q 66-70. Each of these questions given below contains three elements. These elements may or may not have some inter-linkage. Each group of elements may fit into one of these diagrams at (a), (b), (c) or (d). You have to indicate the group of elements which correctly fits into the diagrams.

Q66. Which of the following diagrams indicates the best relation between Doctors, Human Beings and Married People?



Q67. Which of the following diagrams indicates the best relation between Man, Worker and Garden?



Q68. Which of the following diagrams indicates the best relation between Males, Cousins and Nephews?



Q69. Which of the following diagrams indicates the best relation between Children, Naughty, and Studious?



Q70. Which of the following diagrams indicates the best relation between Thief, Criminal and Police?



Q71-75 In each of the following questions find out the alternative which will replace the question mark.

Q71.	Loath (a) (c)	: Coercion :: ?:? Detest : Caressing Irate : Antagonism	(b) (d)	Irritate : Caressing Reluctant : Persuasion
Q72.	Trilogy (a) (c)	/ : Novel :: ?:? Rice : Husk Serial : Episode	(b) (d)	Milk : Cream Gun : Cartridge
Q73	Wife : (a) (c)	Marriage :: ?:? Bank : Money Service : Qualification	(b) (d)	Nationality : Citizenship Attendance : Register
Q74.	East : (a) (c)	Orient :: ?:? North : Polar South : Capricorn	(b) (d)	North : Tropic West : Occident
Q75.	Ignom (a) (c)	iny : Disloyalty :: ?:? Death : Victory Fame : Heroism	(b) (d)	Martyr : Man Destruction : Victory

Q76-80. In each of the following questions, four words have been given out of which three are alike in some manner, while the fourth one is different. Choose the word which is different from the rest.

Q76.	(a)	Aravalli hills	(b)	Shivalik hills	(c)	Mole hills	(d)	Satpura hills
Q77.	(a)	Beaver	(b)	Alpaca	(c)	Walrus	(d)	Koala
Q78.	(a)	Othello	(b)	King Lear	(c)	Oliver Twist	(d)	Macbeth
Q79.	(a)	Nimitz	(b)	Yamamoto	(c)	Nelson	(d)	Montgomery
Q80.	(a)	Blaze	(b)	Glint	(c)	Simmer	(d)	Shimmer

Q81-85. In each of the following questions, select a figure from amongst the four alternatives, which when placed in the blank space of figure (X) would complete the pattern. Q81.



Q84.



Q86-90. Each of the following questions consists of five figures marked 1,2,3,4 and 5 called the Problem Figures followed by four other figures marked a, b, c and d called the Answer Figures. Select a figure from amongst the Answer Figures which will continue the same series as established by the five Problem Figures.



Q91-95. Each of the following questions consists of two sets of figures. Figures 1, 2, 3 and 4 constitute the Problem Set while figures a, b, c and d constitute the Answer Set. There is a definite relationship between figures (1) and (2). Establish a similar relationship between figures (3) and (4) by selecting a suitable figure from the Answer set that would replace the question mark (?) in fig.(4).

Q91.





Q96-100. In each problem, out of the four figures marked (a) (b) (c) and (d) three are similar in a certain manner. However, one figure is not like the other three. Choose the figure which is different from the rest.

Q96.

~	√-	-> •	•
(a)	(b)	(c)	(d)

Q97.



112

(d)

\$/To 0}

(a)

Q99.



(b)

(C)

ANSWER KEYS

AFCAT Model Question Paper-I

1(d)	2(b)	3(d)	4(b)	5(a)	6(d)	7(c)	8(a)	9(d)	10(d)
11(c)	12(c)	13(b)	14(a)	15(b)	16(b)	17(c)	18(c)	19(d)	20(c)
21(c)	22(a)	23(c)	24(c)	25(c)	26(b)	27(a)	28(d)	29(a)	30(c)
31(b)	32(b)	33(d)	34(a)	35(d)	36(c)	37(a)	38(a)	39(a)	40(a)
41(a)	42(d)	43(b)	44(c)	45(c)	46(b)	47(a)	48(d)	49(b)	50(b)
51(b)	52(c)	53(d)	54(c)	55(c)	56(c)	57(d)	58(d)	59(c)	60(b)
61(c)	62(c)	63(a)	64(b)	65(a)	66(d)	67(d)	68(a)	69(c)	70(a)
71(d)	72(c)	73(c)	74(d)	75(c)	76(c)	77(c)	78(c)	79(d)	80(c)
81(d)	82(c)	83(a)	84(b)	85(d)	86(c)	87(c)	88(a)	89(d)	90(c)
91(c)	92(c)	93(a)	94(d)	95(c)	96(a)	97(b)	98(c)	99(c)	100(d)

Instructions for candidates

TIME ALLOTTED – 2 HRS.

- 1. Total No. of Questions–100. Each Question is of three marks.
- 2. One mark will be deducted for every wrong answer.
- 3. Do not write or mark on the Question Paper.
- 4. Question Paper to be returned before leaving the Exam Hall.

Read the following passage carefully and answer the questions given below it.

We stand poised precariously and challengingly on the razor's edge of destiny. We are now at the mercy of atom bombs and the like which would destroy us completely if we fail to control them wisely. And wisdom in this crisis means sensitiveness to the basic values of life; it means a vivid realization that we are literally living in one world where we must either swim together or sink together. We cannot afford to tamper with man's single minded loyalty to peace and international understanding. Anyone, who does it is a traitor not only to man's past and present, but also to his future, because he is mortgaging the destiny of unborn generations.

- Q1. From the tone and style of the passage it appears that the writer is-
 - (a) a prose writer with a fascination for images and metaphors.
 - (b) a humanist with a clear foresight.
 - (c) a traitor who wishes to mortgage the destiny of future generations.
 - (d) unaware of the global power situation.
- Q2. The best way to escape complete annihilation in an atomic war is to-
 - (a) work for international understanding and harmony.
 - (b) invent more powerful weapons.
 - (c) turn to religion.
 - (d) ban nuclear weapons.
- Q3. The phrase 'razor's edge of destiny' means a/an-
 - (a) enigma that cuts through the pattern of life like the edge of a razor.
 - (b) critical situation that foreordains the future.
 - (c) sharp line of division that marks the alternative courses of action in the future.
 - (d) destiny with sharp edges.
- Q4. According to the writer, 'wisdom' on the razor's edge of destiny means:
 - (a) awareness that we stand poised precariously on the razor's edge of destiny.
 - (b) determination to ban nuclear weapons.
 - (c) responsibility to the 'unborn generations'.
 - (d) awareness of the basic values of life.
- Q5. The author is concerned about the threat of nuclear weapons because he feels that-
 - (a) a nuclear war will destroy human civilization.

(b) all countries are interlinked and one cannot escape the consequences of what happens to another country.

- (c) the world is on the brink of disaster.
- (d) his country is threatened by a nuclear war.

In each of the following questions, find out which part of the sentence has an error. If there is no mistake, the answer is (d) "No error".

- Q6. A person I met (a)/in the theatre (b)/was the playwright himself. (c)/No error (d). (a) (b) (c) (d)
- Q7. They walked (a)/besides each other (b)/in silence. (c)/No error (d). (a) (b) (c) (d)
| Q8. | We ret
(a) | turned to the gu | uest hou
(b) | use (a)/impres
(c) | sed by (| b)/what we had
(d) | d seen. (| (c)/No error (d). |
|----------------|--------------------------|--|------------------------|------------------------------|-------------------------|---------------------------------|-----------------|-------------------------|
| Q9.
/No err | The ju
or (d). | dge was convir | nced (a) | /that neither (l | o)/of the | five accused v | vas guilt | y. (c) |
| | (a) | | (b) | (c) | | (d) | | |
| Q10. | The m
(a) | unicipality is go | oing (a)
(b) | /to built a new
(c) | school | (b)/near the pa
(d) | rk. (c)/ I | No error (d). |
| | (0.) | | () | (-) | | (-) | | <u>Set - 1</u> |
| <u>Pick o</u> | out the | most effectiv | e word | from the giv | ven wo | rds to fill in t | he blan | k to make the |
| <u>senter</u> | nce me | aningfully con | nplete. | | | | | |
| Q11. | His ac
(a) | tions had
affected | pa
(b) | ain and sufferii
imposed | ng on th
(c) | ousands of peo
inflicted | ople.
(d) | deplored |
| Q12. | The G
(a) | overnment will collect | (b) | all resources exploit | to fight
(c) | poverty.
harness | (d) | muster |
| 040 | The el | l due a | | |
41 | | | |
| Q13. | i ne cr
(a) | burst | сгаскег
(b) | s to celebrate
fired | (c) | shot | n.
(d) | released |
| Q14. | I am _
(a) | forward seeing | to our p
(b) | icnic schedule
looking | ed in the
(c) | next month.
planning | (d) | thinking |
| Q15. | l hope
(a) | you must have
known | (b) | by now that fa
felt | ailures a
(c) | re the stepping
decided | stones (d) | to success.
realized |
| <u>In eac</u> | h of th | e following cl | hoose | the word mo | st simil | <u>ar in meaning</u> | to the | word given in |
| <u>capita</u> | <u>ls</u> . | | | | | | | |
| Q16. | CAUS
(a) B | ED
rought about | (b) B | rought forward | d (c) | Brought out | (d) | Brought over |
| Q17. | PLACI
(a) | D
Plain | (b) | Clear | (c) | Poor | (d) | Calm |
| Q18. | AUDA
(a) | CIOUS
Obvious | (b) | Daring | (c) | Ardent | (d) | Affluent |
| Pick o | out the | word that is | most | nearly the o | pposite | in meaning | to the | word given in |
| capita | l <u>s</u> . | | | | | | | |
| Q19. | MONC
(a) | DLOGUE
Prologue | (b) | Epilogue | (c) | Dialogue | (d) | Catalogue |
| Q20. | DELE ⁻
(a) | TE
Imbibe | (b) | Improve | (c) | Insert | (d) | Inspire |
| Q21. | AMBIC
(a) | GUITY
Certainty | (b) | Clarity | (c) | Rationality | (d) | Laxity |
| Choos | e the c | correct answer | | | | | | |
| Q22. | The Fi
(a)
(c) | rst Battle of Pa
Akbar & Hemu
Akbar & Rana | nipat wa
J
Sanga | as fought betw
(b)
(d) | /een-
Babur
Ahma/ | and Ibrahim Lo
d Shah Abdali | odhi
& Marat | has |
| Q23. | Fa-hie
(a) C | n visited India (
handra Gupta I | during tl
Maurya | he reign of-
(b) Bindusar | a (c) C | Chandra Gupta | ll (d) | Bimbisara |

Q24.	Gandh (a)	niji's first exper Dandi	rience w (b)	ith Satyag Champa	raha ran	a came (c)	e up i B	in- Benga	I	(d)	Natal
Q25. Sukhd	During ev and	y whose tenu Rajguru hang	re as tl ed?	ne viceroy	of	India	were	e the	great	Martyrs	Bhagat Singh,
Chelm	(a) Lo ford	ord Curzon	(b)	Lord Irwi	n	(c)	Lord	d Mint	0	(d)	Lord
Q26.	The w (a) Ma	inner of the hig ark Spitz	ghest nu (b)	umber of ge Matt Biond	old r i	nedal: (c)	s in a Mich	n Oly ael P	mpic g helps	game is- (d) J	enny
Thomp	oson										
Q27.	'Agha (a)	Khan Cup' is a Football	associa (b)	ted with the Hockey	e ga	me of (c)	- В	Badmi	nton	(d)	Cricket
Q28.	Usain (a)	Bolt, the 100 i Jamaica	meters r (b)	ace world U.S.A.	reco	ord hol (c)	lder, C	is fror Canad	n whic a	h countr (d)	y? Nigeria
Q29. other is	Only t s-	wo cricket pla	yers ha	ve taken 1	0 wi	ckets	in ar	n innir	ngs. C	One is Ar	nil Kumble. The
	(a) R	ichard Hadlee	(b) l	Muttiah Mu	ralic	lharar	ח (מ	c) Jir	m Lake	er (d)	Andy Roberts
Q30.	'Borlau	ug Award' is g	jiven ev	ery year to	o an	India	n scie	entist	for ou	tstanding	g contribution in
the fiel	ld of- (a)	Medicine	(b)	Space	(c)	Арр	lied	Scien	се	(d)	Agriculture
Q31.	The hi (a) (c)	ghest Indian g Ashok Chakr Kirti Chakra	allantry a	award whi (t (c	ich c o) d)	ould b Para Para	be giv am V am V	ven in ′ir Cha ′ishisł	peace akra nt Seva	e time is- a Medal	
Q32.	The m	nost successfi	ul Satel	lite Launch	n Ve	ehicle	of Ir	ndian	Space	e Progra	mme to launch
comm	ercial sa (a)	atellites is kno SLV	wn as- (b)	ASLV		(c)	P	SLV		(d)	GSLV
Q33.	Which (a)	one of the fol Red soil	lowing s (b)	oils is mos Black soi	st su il	itable (c)	for c	otton .oamy	cultiva ′ soil	tion- (d)	Laterite soil
Q34.	The na (a)	ame of indiger Tejas	nously b (b)	uilt Light C Chakra	omb	oat Air (c)	craft V	is- ′ajra		(d)	Trishul
Q35.	The bo (a)	oundary betwe Mc Mohan Li	en Chir ine (b)	na and Indi) Radcliffe	a is Line	knowi e (c)	n as- Hind	enber	rg Line	(d) Lir	ne of Control
Q36. an equ	Equino Jinox wl	ox means two hich is the nex	days in t?	a year wh	en c	day ar	nd nig	ght ar	e almo	st equal	If March 21 is
Q37.	(a) UNHC (a) Pr	R, an organis	ation of	United Nat	tions	(C) S, Was	esta	blishe Relief	ed to p	rovide/pr	omote-
Q38.	Who a	uthored the be	ook 'Tra e (b) k	in to Pakis	tan'' Sin	? ah (c) N	/ulk R	ai Ana	and (d)	Vikram Seth
Q39.	Vitami	n necessary to Vitamin A	o prever (b)	nt prolonge Vitamin F	d bl	eeding (c)	, g is- V	/itamii	n D	(d)	Vitamin K
Q40.	The fa	mous classica Kathakali	al dance (b)	form of Ar Kuchipud	ndhra di	a Prac (c)	desh N	is- Iohini	Attam	(d)	Yakshaagna

Q41. The term 'Carbon Credit' is associated with-

Coal reserve of a nation (b) Reduction of Green House Gas emissions (a) (c) Fossil Fuel reserve (d) Amount of CO₂ an individual emits in a year In a 225 meter long yard 26 trees are planted at equal distance, one tree being at each Q42. end of the vard. What is the distance between two consecutive trees? (a) 10 meters (b) 8 meters (c) 12 meters (d) 9 meters Q43. A bonus of Rs. 1000 is divided among three employees. Rohit gets twice the amount Sachin gets. Sachin gets one fifth of what Gagan gets. How much amount does Gagan get? (a) (c) Rs. 750 Rs. 500 Rs. 625 Rs. 120 (b) (d) Q44. A boy was asked to multiply a number by 25. Instead, he multiplied the number by 52 and got the answer 324 more than the correct answer. The number to be multiplied was-15 (a) 12 (b) (c) 25 (d) 32 Q45. The average age of 35 students in a class is 16 years. Out of these students the average age of 21 students is 14 years. The average age of remaining students is-15 years 17 years (a) (b) (c) 20 years 19 years (d) After replacing an old member by a new member, it was found that the average age of Q46. five members of a club is the same as it was 3 years ago. What is the difference between the age of replaced member and new member? (a) 2 years (c) 15 years (d) (b) 8 years 25 years The average salary of all the workers in a workshop is Rs. 8000. The average salary of Q47. seven technicians is Rs. 12000 and average salary of others is Rs. 6000. The total number of workers in the workshop are-21 23 (a) 20 (b) (c) 22 (d) In an examination a candidate has to get 35% of total marks to pass. In one paper he Q48. gets 62 out of 150 and in the second 35 out of 150. How many marks should he get out of 200 marks in the third paper to pass? (a) 61 68 (c) 70 (d) 78 (b) The salary of A & B together amounts to Rs. 2000. A spends 95% of his salary and B Q49. 85% of his salary. If their savings are same what is the salary of A? (a) Rs. 750 (b) Rs. 1250 (c) Rs. 1500 (d) Rs. 1600 Q50. Out of the 1000 inhabitants of a town, 60% are male of whom 20% are literate. If, amongst all the inhabitants, 25% are literate, then what percentage of the females of the town are literate? (b) 32.5 27.5 (d) 37.5 (a) 22.5 (c) A trader mixes 26 Kg of rice at Rs. 20 per kg with 30 Kg rice of another variety costing Q51. Rs. 36 per Kg. If he sells the mixture at Rs. 30 per Kg his profit will be-(d) 10% (a) -7% (b) 5% (c) 8% Q52. The difference between the cost price and sale price is Rs. 240. If the profit is 20%, the selling price is-Rs. 1200 Rs. 1440 (c) Rs. 1800 Rs. 2440 (a) (b) (d) Samant bought a microwave oven and paid 10% less than Maximum Retail Price(MRP). Q53. He sold it with 30% profit on his purchase cost. What percentage of profit did he earn on MRP? 17% (b) 20% 27% 32% (a) (c) (d)

Q54. more tl	The pi han a T	rice of a scoote V set, then the	er and a price o	a TV are in the f TV set is-	e ratio	of 7:5. If the s	scooter	costs Rs. 8000
	(a)	Rs. 20000	(b)	Rs. 24000	(c)	Rs. 32000	(d)	Rs. 28000
Q55. them to	The sp o travel (a)	beed of three of the same dista	cars is ince is-	in the ratio of	5:4:6.	The ratio betw	(d) 1	e time taken by
056	Tho ro	tion botwoon	two nu	$\frac{0.4.0}{2}$		numbor is in		L by 6 the ratio
becom	es 4:5.	The difference	e betwe	en the number	s is-		cieasec	
	(a)	1	(b)	3	(C)	6	(d)	8
Q57. increas	Q57. Rs. 800 becomes Rs. 956 in 3 years at a certain rate of interest. If the rate of interest is increased by 4% what amount will Rs. 800 become in 3 years?							
058		NS. 1020	toko fo	1.3.1052	(C) f Do 14	50 to gain Ps	(u) 81. as in	torost if rate of
interes	t is 4.5	% p.a on simple	e intere	st?	1 1\3. 4\	bo to gain its.	51 85 11	
	(a)	4.5 years	(b)	3.5 years	(c) 5 y	/ears	(d)	4 years
Q59.	At wha (a)	at rate of annua 5.5%	l simple (b)	e interest will R 8%	s. 1000 (c)	0 double in 15 6.75%	years? (d) 7.	25%
Q60.	The va (a)	alue of (?) in the 152.456	e equati (b)	on 365.089 - 1 152.459	? + 89.7 (c)	2 = 302.35 is- 153.456	(d) 1	53.459
Q61.	A sum	of Rs. 312 is o	divided	among 60 boys	s and s	ome girls in su	ch a wa	y that each boy
gets R	s. 3.60	and each girl g	ets Rs.	2.40. The num	ber of g	girls are-	(I)	
	(a)	35	(D)	60	(C)	40	(a)	65
This is	s a tes	t of your abil	<u>ity to ι</u>	understand w	ords. F	or each ques	tion fo	ur options are
<u>given.</u>		<u>Is only one co</u> = means the sa	me as	nswer for eac	n quest	tion. Mark the	correct	<u>t answer</u> .
QU2.	(a)	short	(b)	delay	(C)	place	(d)	provoke
Q63.	SUCC (a)	UMB means th aid	e same (b)	as yield	(c)	check	(d)	oppose
Q64.	ANOM	IALOUS means	s the sa	me as				
	(a)	disgraceful	(b)	formless	(c)	irregular	(d)	threatening
Q65.	FORT (a)	UITOUS means accidental	s the sa (b)	me as conclusive	(c)	courageous	(d)	prosperous
Q66	PERM (a)	EABLE means flexible	the sar (b)	ne as variable	(c)	soluble	(d)	penetrable
Q67.	CONV (a)	OY means the carry	same a (b)	is flock	(c)	standard	(d)	escort
Q68.	CITE r (a)	neans the sam illustrate	e as (b)	reveal	(c)	recollect	(d)	quote

Q69.	VOCA [.] (a)	TION means t hobby	he same (b)	e as occupat	ion	(c)	post	(d)	designation
Each d					undarl	(e)	pool		are to indicate
which	one of	the four cho	ices mo	ost nearly	v mea	ns th	e same as the	underli	ned/capitalized
word.									
Q70.	The be (a)	nefits of the p significant	lan are l (b)	ikely to b obvious	e <u>tran</u>	<u>sitory</u> . (c)	temporary	(d)	cumulative
Q71.	The hil (a)	kers found sev cracks	/eral <u>cre</u> (b)	<u>vices</u> in t minerals	he roc s	ks. (c)	canals	(d)	puddles
Q72.	BOOK (a)	is to CHAPTE ELEVATOR	ER as Bl (b)	JILDING LOBBY	is to	(c)	ROOF	(d)	STOREY
Q73.	CARR (a) (c)	OT is to VEGE DOGWOOD PEPPER is t	ETABLE is to OA o SPICE	as K		(b) (d)	FOOT is to F SHEEP is to	PAW LAMB	
Q74.	CONC (a) (c)	AVE is to COI CAVITY is to OVAL is to C	NVEX as MOUNI BLONG	3)		(b) (d)	HILL is to HO ROUND is to	DLE POINTI	ED
Q75.	GOWN (a)	I is to GARME COOLANT	ENT as C (b)	GASOLIN FUEL	IE is to) (c)	OIL	(d)	LUBRICANT
Q76.	HYPEI (a) (c)	R- is to HYPO DIASTOLIC i SMALL is to	- as s to SYS LARGE	STOLIC		(b) (d)	OVER is to U STALE is to	JNDER FRESH	
Q77.	IMMIG (a) (c)	RATION is to ARRIVAL is to LEGAL is to	EMIGR/ to DEPA ILLEGAI	ATION as RTURE -	6	(b) (d)	FLIGHT is to MIGRATION	VOYAG is to TR	SE AVEL
Q78.	OCTA (a)	GON is to SQ POLYGON	UARE a: (b)	s HEXAG PYRAM	SON is	to (c)	RECTANGLE	(d)	TRIANGLE
Q79.	TELL i (a) (c)	s to TOLD as RIDE is to R0 WEAVE is to	DDE WOVE			(b) (d)	SINK is to SA WEEP is to V	ANK VEPT	
Q80.	SHEEI (a)	^{>} is to LAMB a COLT	as HORS (b)	SE is to DOE		(c)	FAWN	(d)	MARE
Q81.	IGNOF (a) (c)	₹E is to OVER AGREE is to DULL is to S	LOOK a CONSE HARPEN	is NT N		(b) (d)	CLIMB is to LEARN is to	WALK REMEN	IBER
Q82.	FREQ (a) (c)	JENTLY is to ALWAYS is t GENERALLY	SELDO o NEVE ′ is to US	M as R SUALLY	(b) (d)	EVEI OCC	RYBODY is to I ASIONALLY is	EVERYC to CON	DNE STANTLY
This te	est is d	esigned to te	est your	ability t	<u>o vis</u> t	ualize	and manipula	te objec	<u>cts in space. In</u>
each o	questio	n, you are s	hown a	picture	of a	block	<u>. To the right</u>	of the j	<u>pictured block</u>
that is	iust lik	e the picture	d block	at the le	ft alth	ouah	turned in a dif	ferent n	osition.
Q83.		A	B	С])	E		<u> </u>











Q89. **A B C D E**



The hidden figures test is designed to perceive simple figures in complex drawings. At the top of each section are five figures lettered A, B, C, D, and E. Below these are several numbered drawings. You must determine which lettered figure is embedded in each of the numbered drawings.



Q92.







Q94.





Q95.





Q96.







Q97.











Q99.

.





Q100.





Instructions for candidates

TIME ALLOTTED: 2 Hrs

1. Total No. of Questions-100. Each Question is of three marks.

- 2. One mark will be deducted for every wrong answer.
- 3. Do not write or mark on the Question Paper.
- 4. Question Paper to be returned before leaving the Exam Hall.

Read the following passage carefully and answer the questions given below:

Pablo Picasso showed his truly exceptional talent from a very young age. His first word was lapiz (Spanish for pencil) and he learnt to draw before he could talk. He was the only son in the family and very good-looking, so he was thoroughly spoilt. He hated school and often refused to go unless his doting parents allowed him to take one of his father's pet pigeons with him.

Apart from pigeons, his great love was art and when in 1891 his father, who was an amateur artist, got a job as a drawing teacher at a college, Pablo went with him to the college. He often watched his father paint and sometimes was allowed to help. One evening his father was painting a picture of their pigeons when he had to leave the room. He returned to find that Pablo had completed the picture, and it was so amazingly beautiful and lifelike that he gave his son his own palette and brushes and never painted again. Pablo was just thirteen.

- Q1. As a boy Pablo Picasso was
 - (a) Ordinary looking but talented.
 - (c) Handsome and studious.
- Q2. He was spoilt mostly because he was
 - (a) A smart boy.
 - (c) The only son in the family.
- Q3. Picasso went to school only when
 - (a) His friends accompanied him.
 - (c) He was allowed to paint at school.

- (b) Handsome and talented.
- (d) Handsome and hardworking.
- (b) Loved by one and all.
- (d) Always surrounded by notorious boys.
- (b) His father went with him.
- (d) He was allowed to carry a pet
- with him.
- Q4. When his father painted in the college, Pablo
 - (a) Occasionally helped him.
 - (c) Always helped him.

- (b) Rarely helped him.
- (d) Invariably helped him.
- Q5. Pablo's father gave up painting because he
 - (a) Did not like the job.
 - (c) Was impressed by his son's talent. (d)

In each of the following questions, find out which part has an error.

Q6. The boss was irritated (a)/ by him neglecting (b)/ the duties and (c) not listening to his advice (d).

- (a) (b) (c) (d) Q7. Each of the three (a)/ beggars were (b)/ asking for more (c)/ food to eat (d). (b) (c) (a) (d) My brother sent (a)/two pairs (b)/ of shoe (c)/ from America (d). Q8. (d) (a) (b) (c)
- Q9. The young boy said (a)/that he (b)/neither liked me (c)/nor my wife (d). (a) (b) (c) (d)
- Q10. He was (a) /congratulated for (b)/his success in (c)/ the 100 m race (d). (a) (b) (c) (d)

(b) Retired from the college.(d) Lost interest in painting.

Pick up the most effective word from the given words to fill in the blanks to make the sentence meaningfully complete.

Q11.	Sanjay	/ was		with divine vi	sion to s	see the great ba	attle.	
	(a)	Demure	(b)	Authorized	(c)	Endowed	(d)	Uttered
Q12.	There	was so much		material ir	the ess	say that it was o	difficult t	to get the
author	's mess	age.				, ,		0
	(a)	Variegated	(b)	Superficial	(c)	Extraneous	(d)	Exemplary
Q13.	The w	orld is so const	ructed t	hat if you wish	to enjo	v its pleasures.	vou mu	ust also
its pair	าร.			,	··· · , · .	, ,	,	
•	(a)	Denv	(b)	Neglect	(c)	Ignore	(d)	Endure
Q14.	Ìndian	press did not c	live	to	the Briti	ish publicity.	()	
	(a)	Credence	(b)	Scion	(c)	Augury	(d)	Opportunity
Q15.	Travel	lers	`´ the	ir reservations	well in a	advance if they	want to	travel during
the Div	wali holi	days.				,		Ũ
	(a) has	s better to get	(b) had	better get	(c) had	d to get better	(d) had	d better got
In eac	h of the	e following ch	oose th	e word most	similar	in meaning to	the wo	ord given in
capita	ls.							
Q16.	EMAN	CIPATE						
	(a)	Set free	(b)	Exist	(c)	Correct moral	ly (d)	Restrain
Q17.	DÉCE	IT			()			
	(a)	Simplicity	(b)	Gentility	(c)	Sincerity	(d)	Dishonesty
Q18.	ÀDMC	NITIÓN		-		·		
	(a)	Thrash	(b)	Hindrance	(c)	Warning	(d)	Exhort
In eac	ch of th	e following ch	oose tl	ne word most	nearly	opposite in m	eaning	to the word
given	in capi	tals.						
Q19.	VOCIF	EROUS						
	(a)	Laudable	(b)	Quiet	(c)	Dangerous	(d)	Powerful
Q20.	ÌMPLI	CATE				C C	. ,	
	(a)	Involve	(b)	Exonerate	(C)	Corrupt	(d)	Accuse
Choos	se the c	correct answer	•					
Q21. T	he pers	son who is rega	arded as	s the greatest	aw give	r of ancient Ind	ia is	
	(a)	Panini	(b)	Kautilya	(c)	Manu	(d)	Patanjali
Q22.	The in	nmortal fame of	Ashoka	a largely rests	upon			
	(a)	His conversion	n to Bud	dhism and its	propaga	ation.		
	(b)	His policy for t	the welf	are of his subj	ects.			
	(c)	His work in the	e spher	e of politics an	d moral	teaching.		
	(d)	His extensive	conque	sts.				
Q23.	Gandh	niji started Dano	di March	า				
	(a) To	demonstrate a	gainst tl	he British Emp	ire.	(b) To break t	he salt l	aw.
	(c) To	boycott foreign	goods.			(d) None of th	e above	Э.
Q24.	The fir	st war of Indiar	n Indepe	endence begai	n on 10	May 1857 at		
	(a)	Meerut	(b)	Jhansi	(c)	Barrackpore	(d)	Delhi
Q25.	The su	in rises in Arun	achal P	radesh two ho	urs befo	ore it does in D	waraka	in Gujarat. This
is beca	ause the	e former is						
	(a)	Higher in elev	ation th	an Dwaraka a	nd the e	arth rotates fro	m West	to East.
	(b)	Situated furthe	er North	than Dwaraka	a and the	e earth rotates	from W	est to East.
	(C)	Situated furth	er East	(about 30° Lo	ongitude) than Dwaraka	a and th	ne earth rotates
	from V	Vest to East.	-					
	(d)	Situated abou	t 30° E	ast of Dwarak	a and th	e earth rotates	from W	est to East.

Q26. Srinagar is situated on the banks of the river Jhelum (d) Chenab (a) Ravi (b) Sutlei (c) Q27. The areas in India that receive approximately an average of more than 200 cms of rainfall annually are Meghalaya, Assam, Nagaland, Arunachal Pradesh. (a) (b) Orissa, Madhya Pradesh, Gujarat, Maharashtra. Meghalaya, Assam, Rajasthan, Jammu & Kashmir. (c) Meghalaya, Delhi, Punjab, Rajasthan. (d) Q28. Isotherms are imaginary lines drawn on a map which connect places of equal (c) Rainfall (a) Atmospheric pressure (b) Humidity (d) Temperature Q29. Jim Corbett National Park is situated in which state? Arunachal Pradesh Himachal Pradesh (a) (b) Andhra Pradesh (d) (c) Uttaranchal Q30. Which one of the following statement regarding the sun is correct? The sun is composed mainly of hydrogen. (a) Its energy is generated by nuclear collision in its interior. (b) It is calculated that the sun consumes about a trillion pounds of hydrogen every (c) second. (d) All of the above. Supersonic speed is speed greater than the speed of sound (in air at sea level) that is to Q31. say around_ miles/hour. 760 860 (c) 960 (d) 1060 (a) (b) Q32. Yoga sutra was written by (a) Vatsvavana (b) Pathaniali (c) Bhartrihari (d) Maharshi Mahesh The National Institute of Oceanography is located at Q33. Trivandrum (b) Panaji (c) Cochin (d) Mangalore (a) An aeroplane rises because Q34. Of upward reaction of air. (a) (b) The density of air above the plane is less than below it. (c) The pressure above its wings is less than the pressure below them. (d) Its nose points upwards. Q35. Rocks formed on the solidification of molten matter are called Metamorphic rocks Sedimentary rocks (a) (b) (c) Volcanic rocks (d) Igneous rocks The pioneer of Atomic energy in India is Q36. Homi J Bhabha Vikram Sarabhai (a) (b) (c) C.V. Raman (d) C.K. Naidu Q37. Which one of the following statements regarding FIFA World Cup 2010 is not correct? South Africa became the first host nation to fail to qualify for the tournament's (a) second round. The tournament was the culmination of a qualification process that began in (b) August 2007. This is the first time that the tournament was hosted by an African nation. (c) (d) Zakumi, the official mascot for the FIFA World Cup, 2010 is an African bush elephant. Q38. The first Indian to win the World Amateur Snooker Championship is Geet Sethi (a) Om Agarwal (b) (c) Michael Ferreira (d) Wilson Jones The first person to win the Arjuna award for badminton is Q39.

(a)	Pullela Gopichand	(b)	Prakash Padukone
(-)	Nanalu, Natalian	(-1)	Eanaal: Eastaaaa

(c) Nandu Natekar (d) Farook Engineer

Q40.	The sport which rec	uires the larges	t field is		
	(a) Football	(b) Cricket	(c) Ho	ckey	(d) Polo
Find tl	he odd one out.			•	
Q41.	(a) Advice	(b) Counsel	(c) Direct		(d) Suggest
Q42.	(a) Tumble	(b) Topple	(c) Crumble		(d) Sprain
Q43.	(a) Sobriquet	(b) Alias	(c) Pseudony	m	(d) Anonymous
Q44.	(a) Mumbai	(b) Goa	(c) Visakhapa	tnam	(d)Thiruvananthapuram
Q45.	(a) Petrol	(b) Acetone	(c) Mercury		(d) Kerosene
In the	following question	s the words giv	en bear a certa	ain relat	tionship. Your task is to find
out fro	om the choices the	words with the	same relation	ship.	
Q46.	Hope: Despair				
	(a) Work : Failu	re	(b)	Worsh	ip : Adore
	(c) Cow : Milk		(d)	Encou	rage : Dishearten
Q47.	Army : Logistics				-
	(a) War: Logic		(b)	Soldier	s : Students
	(c) Business : S	Strategy	(d)	Team :	Individual
Q48.	Bouquet : Flower				
	(a) Skin : Body		(b)	Chain	: Link
	(c) Product : Fa	ictory	(d)	Page	Book
Q49.	Revenge: Vendetta				
	(a) Sleep: Drea	m	(b)	Sun: N	loon
	(c) Envy : Jealo	ousy	(d)	Heave	n : God
Q50.	Refine : Style				
	(a) Retouch : F	hotograph	(b)	Paint :	Wall
	(c) Compose :	Song	(d)	Author	: Book
Q51.	Fear : Tremble				
	(a) Hand: Shał	ke i	(b)	Heat :	Perspire
	(c) Distance : \	Valk	(d)	Evenir	ng : Star
Q52.	Condone: Offence				
	(a) Punish: Cri	minal	(b)	Mitigat	e: Penitence
	(c) Overlook: A	berration	(d)	Ignore:	Loyalty
Q53.	Plant : Flower				
	(a) Face :Eye		(b)	Stem	Tree
	(c) Chair :Sofa		(d)	Blades	:Grass
Q54.	Protoplasm : Cell				
	(a) Fibre : Plas	tic	(b)	Coin :	Money
	(c) Chemistry :	Elements	(d)	Chain	: Link
Q55.	Nalanda : Takshsh	ila			
	(a) Venus : Mar	S	(b)	Univer	sity : College
	(c) Office : Dep	artment	(d)	Ship : (Cargo
In the	following question	<u>ns (Q56-60) the</u>	<u>e first word is</u>	related	to the second in the same
way as	s the third word is I	related to the fo	ourth. In the give	ven pro	blems either the third or the
fourth	word is missing a	nd is left blank.	You have to c	hoose t	the correct word to fill in the
blank.					
Q56.	Foot is to Man as H	loot is to	·	o <i>i</i>	
0	(a) Dog	(D) Cow	(C)	Cat	(d) Rabbit
Q57.	Broad is to Narrow	as is	to Lane.		

(a) Footpath (b) Field (c) Pavement (d) Road Back is to Backbone as Belly is to Q58. Throat (b) Ribs (c) Heart (d) Navel (a) Q59. Ankle is to Knee as Wrist is to Elbow (c) (a) (b) Finger Hand (d) Foot Q60. Sting is to Bee as ____ is to Snake. (b) Slithering Rats (c) Poison (d) (a) Fangs Hari's income is 20% more than Madhu's income. Madhu's income is less than Hari's Q61. income by 16.66 % (c) 15% (b) 20% (d) 22.25% (a) Q62. A sum of money lent out at simple interest doubled itself in 20 years. In how many years will it triple itself? 40 yrs (a) 28 years (b) 30 yrs (c) (d) 35 yrs Q63. Which of the following fractions are in ascending order? 2/3, 3/5,7/9,9/11,8/9 3/5, 2/3, 9/11, 7/9, 8/9 (a) (b) 3/5, 2/3, 7/9, 9/11, 8/9 8/9, 9/11, 7/9, 2/3, 3/5 (c) (d) Q64. 337.62+8.591+34.4 =? 370.611 (b) 380.511 380.611 426.97 (a) (c) (d) Q65. Find the sum of :- 1/9+1/6+1/12+1/72 3/8 4/7 (a) 3/5 (b) 3/2 (c) (d) Find the average of all the numbers between 6 and 34 which are divisible by five. Q66. (b) 20 24 30 (a) 18 (c) (d) The average of first 80 natural numbers is Q67. (a) 40 (b) 41 (c) 40.5 (d) 142 Q68. If the sum of a few numbers is 450 and their mean is 50 and if another number 100 is included, the mean would become 55 60 (c) 75 (d) 150 (a) (b) ?% of 932 + 30 = 309.6 Q69. 25 40 (a) (b) 30 (c) 35 (d) Q70. The difference between a number and its two-fifth is 510. What is 10% of that number? 12.75 (b) 85 204 (a) (c) (d) None One litre of water is evaporated from 6 litres of a solution containing 5% salt. The Q71. percentage of salt in the remaining solution is (a) 4% 16% (b) 5% (c) 6% (d) Q72. A shopkeeper professes to sell all things at a discount of 10% but increases the Selling Price of each article by 20%. His gain on each article is (a) 10% 12% 6% (b) 8% (c) (d) If the selling price of an article is 4/3rd of its cost price, the profit in transaction is Q73. 16.75% 20.50% 25.50% (b) (c) 33.33% (a) (d) If selling price is doubled, the profit triples. Find the profit percent. Q74. 66.66 100 105.33 120 (a) (b) (c) (d) If 4/5th of an estate is worth ` 16,800, then the value of 3/7th of the estate is Q75. `9000 `21000 `72000 **`90000** (a) (b) (c) (d) If $a/b = \frac{3}{4}$ and 8a+5b=22, then the value of 'a' is Q76. 3/4 (a) (b) 1/2 (c) 3/2 (d) 1 If (a-b) is 6 more than (c+d) and (a+b) is 3 less than (c-d), then the value of (a-c) is Q77. (a) 0.5 (b) 1.0 (c) 1.5 (d) 2.0

Q78. Two numbers are in the ratio 7:8. If 3 is added to each of them their ratio becomes 8:9. The numbers are

(a) 14, 16 (b) 24, 27 (c) 21, 24 (d) 16, 18 Q79. The sum of three numbers is 98. If the ratio of the first to the second is 2:3 and that of the second to the third is 5:8, then the second number is 30 (a) 20 (b) (c) 48 (d) 58

Q80. A certain amount was divided between Sita and Gita in the ratio 9:8. If Sita's share was ` 4500 then the amount is

(a) 9000 (b) 8500 (c) 6750 (d) 9025Find out which of the figures (1), (2), (3) and (4) can be formed from the pieces given in figure (X) (Q81 to Q84). Q81.



In each of the following questions (Q.86-90) select a figure from amongst the four alternatives, which when placed in the blank space of figure (X) would complete the pattern.



In each of the following questions (Q91-95) you are given a figure (X) followed by four alternative figures (1), (2), (3) and (4) such that figure (X) is embedded in one of them. Trace out the alternative figure which contains fig. (X) as its part.





In each of the following questions (Q96-100) find out which of the answer figures (1), (2), (3) and (4) completes the figure matrix





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TIME ALLOTTED: 2 Hrs

AFCAT VII

Instructions for candidates

1. Total No. of Questions-100. Each Question is of three marks.

- 2. One mark will be deducted for every wrong answer.
- 3. Do not write or mark on the Question Paper.

Question Paper to be returned before leaving the Exam Hall.

Read the following passage carefully and answer the guestions given below:

We shall go on to the end, we shall fight in France, we shall fight on the seas and oceans, we shall fight with the growing confidence and strength in the air, we shall defend our island whatever the cost may be, we shall fight on the beaches, we shall fight on the landing grounds, we shall fight in the fields and in the streets, we shall fight in the hills. We shall never surrender, and even if this island or a large part of it were subjugated and starving, then our empire beyond the seas would carry on the struggle, until the New World steps forth to the rescue and the liberation of the Old.

Q1. On the basis of the passage which of the following statements may be said to be correct?

(a) The speaker is encouraging his men for the conquest of France

(b) The speaker is an aggressive and maniacal war-monger

- (c) The speaker is not satisfied with the conquest of the island
- (d) The speaker is a patriot urging the defence of his motherland

Q2. The speaker in the passage wants to go on fighting because:-

- (a) He is a raving lunatic
- (b) He is in a state of utter despair
- (c) He expects help from other quarters
- (d) He is the leader of a suicide squad

Q3. Which of the following pair of the phrases helps best to bring out the intention of the speaker?

- (a) "Go on to the end"," shall never surrender"
- (b) "Growing confidence", "subjugated and starving"
- (c) "Subjugated and starving", "fighting on the landing ground"
- (d) "Fighting in the streets", "subjugated and starving"

Q4. The passage consists of repetitive patterns in syntax and vocabulary. The effect of this style is that it -

- (a) Reveals the speaker's defects in giving a speech
- (b) Produces the impression of bad poetry
- (c) Conveys the speaker's helpless situation
- (d) Reinforces the speaker's basic intention
- Q5. The tone of the speaker is -
 - (a) Pleading and urging
 - (b) Inspiring and encouraging
 - (c) Discouraging and gloomy
 - (d) Menacing and bullying

In each of the following, choose the word most similar in meaning to the word given in capitals.

- Q6. 'MEDDLE'
 - (a) Disregard

(b) Overlook

(c) Interfere

(d) Free

S/84 DPH/12-

Continued 2....

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(gr	(s) Septimer	(b) Even of the				
98	'ESTRANGE'	(o) Run on seorer	lγ (α)	Abido	(d)	Discuss
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Q10	"WANE"	(-)	(0)	H'aising	(d)	Provate
	(8) Wider	(b) Poer	(c)	Swell	(d)	זלכון
<u>in ea</u>	<u>ion of the following</u>	<u>i questions, find o:</u>	n witten Da	art has an other	1-7	
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Q12	The mail who (a)	they instead to be	u vine o ge	<= 0.00 my (100035 	.0033	stagat (d)
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Q18	While on a volume	High, the arcraft vo	as hit by a :	anizai e and	unto f	aco Iames
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Q22	The Non Co-operation	tion Moven on stars	ed in which	соскакан үзэне. Худан?	ao nd:	weath 1 squre
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Ċ	31.	River Sattuj opginats (a) Northern stopes (c) Rakas Lako	es from - of the Kallash raoge	(b) Spring at Veri (d) Amerikanitak p	næq Isleau
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C	36	is a thyroi⊄ (a) Calcitorisi	hormone which contra (b) Thyroxine	ols the balance of cal (c) Calmodulin	cium in the booy (d) ali of these
C vi	337 vhrah	The cell walf in plat interink the contents (a) Plasmatible	nts is :nterrupted by n , of the cells i⊺hes⊮ st (b) Microvili	andw opres carrying rands are called - (c) Plasmodesm	y fine strands of cytoplasm ata (d) Piasmalemma
6	438.	Who is the crickese (a) Sachin Tendull	thestowed with an ho ar (b) Kapil Dev	norary commission i (c) Virendra Sehwag	n the Territorial Army? ⊖d) Harbhajae Singh
ι	Q39	The hansport phen (a) Non-equipment (a) equilibrium, inc	omenor popurs only a trimeverstole versible	nstate of alge (b) Non-equilibri (d) equilibrium f	s and is un: lieversibie revensible Continuero 4

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	(8) 55 YCars	(b) 52 Years	(c) 42 Years	17 - 60 Marine
Q43	A vessel, full of	water, weighs 24 Kg i	When the vessel is 1.4.6	
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_	(a) 604	(b) 370	(c) 253	(41) 150
Q45.	l⊫a/(a≁b)=15/21	l, what is (a≜b)#a-b) er	iliai •o?	107 189
	(a) 13/9	(b) 237; 5	(
Q45.	{7 <u>98+579}²-(79</u> ; (798×579)	<u>3-579i</u> ² ≡ 2	101	(d) 21/9
	(a) 2	20.6	(-) · ·	
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was (Lung the first for	a melaverage mohilijy. V monto- it tua aa	expenditure was 17/2	275 more than what it
mohil	15 of the year fin	s what certectory at	on spent ? 60% in all di	ung the remaining three
year?		e man parad kaye ar	nis annual income of 🤊	3500 aid he save in the
	(a) 16%	(b) 15%	(c) 20%.	
Q48	The average ag	e of students of a clas	: ie 15 8	(G) 20%
riass Pumb	is 16.4 years and er of g/os in the cla	that of the piris is 15	4 years. The ratio of It	enage age of boys in the ne number of boys to the
	(a) 1·2	(b) 2.3	(c) 3.4	1.15.15.1
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resbér	twely. At the end	of year the interest eau	native Bellson, Steele	and 12% rate of interest
	(a) ₹8500	(b) ₹ 15000	/et \$ 7500, 500 (ne	Sum invested in each
Q51.	The simple inter-	est account on a num	14, 11,200	(d) ₹ 17,000
pancip	al. What is the rat (a) 4%	e of interest per annum	or money at the end of ?	foral veals is 175th of its
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errual	Income ie ₹ 200) is tent out into two p	larts one at 9% and ar	100/101 at 2.5. If the total
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2000 7% of t	he votes ware	tween two candidates	70% of the volers cast ti	101 votes out of which
valid v	les Find the total	zaren invalid. A çandıri Duurber of united	ate gol 7203 votes which	WdS 60% of the total
	(a) 18050	12500 (h) 12500	elled withat electron	
		147 11 200	(CL 17000	.d) .200
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5 If the price of kerosone be raised by 11% find by now much percent a nouse noicer Q54 must reduce his consumption of kerosene so as not to increase his expenditure? (a) 11% (b) 9.9% (c) 11 09% (d) 8 25% 75 pupils from a school appeared for an examination and 80% of them passed. Another Q56. school entered 10 more pupils than the first school and five pupils less than the first school passed. The pass % of unithe second school was:-(a) 75% (b) 84% (c) 72% (d) 64 7% Davide ₹ 80 in the proportion of 3.6.7 Q56. (a) ₹ 10, ₹ 35 ₹ 40. (b) ₹ 15, ₹ 30, ₹ 35 (c) ₹ 15. ₹ 35. ₹ 30. (d) ₹ 10, ₹ 40, ₹ 35 Calculate the amount on ₹ 1875 for 2 years at 4% per annum, compounded yearly. Q57. (a) ₹676 (b) ₹ 776 {c) ₹ 1778 (d) ₹ 2028 Q58. If x varies as y and x = 8 when y = 15 then the value of x when y=10 is:-(a) 5 (b) **15/**8 (c) 8/15 (d) 16/3 Q59. In a mixture of 60 litres, the ratio of milk and water is 2.1. What amount of water must be added to make the ratio of milk and water as 1.2.2. (a) 42 Litres (b) 56 ⊥itres. (c) 60 Litres. (d) 77 Litres A sum of ₹ 10,000 is tent partly at 6% and the remaining at 10% p.a. If the yearly interest Q60. on the average is 9.2 %, the money ent at 10% is -(a) 🕅 8000 (b) ₹ 8500. (c) ₹ 5050. (ば) ₹ 2000 Choose the word which is least like the other words in the group Direction:-Q61. (a) Garo (b) Khasi (c) Kangra Jayantia Q62. (a) Virgo (b) Pisces (\$) Cancer (C) Outon Q63. (a) Stroutger (b) Foot (c) Finger (c) Elbow. Q64, (a; Canoc (b) Dingy (c) Yatch (0) **i**gipo (Q65. (a) Inni (b) Club (c) Motel (c) hiostel <u>Directions:- The following questions consist of two words that have a certain</u> relationship to each other, followed by four alternatives. Select the best alternative that has the same relationship as the original cair of words Q38___ Equor . Dripk (a) Bread : Butter (b) Teal, Beverage (c) Snift Inhale (d) Water : Sip Q67. Eveporation Cloud (a) Mountain Snow (c) Book . Pages (c) Pressure : Atmosphere (d) Tension : Breakdown Q68. Barrel : Viai (a) Book : Pamphlet (b) Book . Reader (c) Brochure : Complier. (d) Lengtin , Height 098 Cream : Cosmetics (a) Tiger : Forest (b) Mountain Valley (c) Magazine : Ecitor (d) Teak : Wood Q70 -Carnivore ' Herbivore (e) Fless . Plant (b) Horse Lion (c) Came! : Giratte (d) Animal . Biid Three words in bold letters are given in each question, which have Direction :

something in common among themselves. Out of the four given alternatives, choose the most appropriate description about these three words.

Q71 Hamlet : Macbolb : Fausius

(a) They were Princes.

(b) They are plays by Shakesbear.

(c) They are characters from various dramas. (f) They were romantic heroes

Continued 1.6

Vesovius : Etna : Kilimenjaro Q/2(a). These are sites of volcanoes. (b) These are talend countries. (c) These are fulls of Italy. (6) These lie in polar region. Q73. Knot : Watt : Fathern (b) The forms are used by seriors (b) The terms are used to installing significity (c) The terms are connected with rope (d) They are unity of measurement, Berugi : Digboi : Aphleshwar Q74. (a) They are famous for all fields. (b) They are famous religious places. (c) They are lounst places of South India. (d) They are famous for hardhome 075 Knight , Rook Gistion (a) These are missionaries. (b) These are churchmen. (c) These are cheasman. (d) These are ranks of military. 076 Abhi Shatiacharya : Utpal Dutt : Salyajit Ray (a) They are character actors. (b) They are directors of Bengali movies. (c) They are famous poets and writers. (d) These parsonalities belong to Bangal UN 2 Voodoo : Screery : Necromancy (a) They are ancient acts found in soulidaries. (b) They are terms connected with black magic. (a) They are endient scripts. (d) They are means of communication of pre-historic age. G78. Rourkela : Bokaro : Durgepur (a) They are steel plants. (b) They have coal mines (c) They have stomic power plants. (d) They are on the see coast. C79 Spinach Fenugreek Celery. (a) These are captus plants. (c) These are wroiplants. (c) These are wild flowers. (d) These are leasy vagetables.

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- Q80. Yesta ; Ghalib : Kabir
 (a) They were social reformers
 (c) They were saints
- (c) They were famous poets.
- (d) They were yoga instructors.

<u>Direction:</u> There are two sets of figures namely the Problem figures containing *6we* figures 1, 2, 3, 4, 5 and answer figures (a), (b), (c), (d). You have to select one figure from the Answer figures which will continue the same series as given in the Problem figures.



Continued,



<u>Direction</u>: The following satisfies involve a closter of three of more geometrical figures, having one or more dots placed at any polar sisted the cluster. This cluster is followed by a set of four alternative figures each composed of a cluster of the same type of figures. Now, for each dott we have to observe the region in which it is eaclosed i.e. in which of the geometrical figure this region is common.

From amongst the figures marked (c), (b), (c) and (d), select the figure which satisfies the same conditions of placement of the dot as in fig. (X).



<u>Direction</u> In this postion, a figure is given as an original figure (X) followed by four above: figures. The original figure is embedded or hidder, in one of the above: figures, (a, b, c, δ, a) . Seech the elternative that carries the correct hours which clearly specks the stratedded position of the original figure.



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(X) (a) (b) (c) [d] <u>Direction:</u> In each of the following questions, a part of the figure is missing. Find out from the given options (a), (b), (c) or (d), the right figure to fit in the missing figure (X).

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TIME ALLOTTED: 2 Hrs

AFCAT VII

Instructions for candidates

1. Total No. of Questions-100. Each Question is of three marks.

- 2. One mark will be deducted for every wrong answer.
- 3. Do not write or mark on the Question Paper.

Question Paper to be returned before leaving the Exam Hall.

Read the following passage carefully and answer the guestions given below:

We shall go on to the end, we shall fight in France, we shall fight on the seas and oceans, we shall fight with the growing confidence and strength in the air, we shall defend our island whatever the cost may be, we shall fight on the beaches, we shall fight on the landing grounds, we shall fight in the fields and in the streets, we shall fight in the hills. We shall never surrender, and even if this island or a large part of it were subjugated and starving, then our empire beyond the seas would carry on the struggle, until the New World steps forth to the rescue and the liberation of the Old.

Q1. On the basis of the passage which of the following statements may be said to be correct?

(a) The speaker is encouraging his men for the conquest of France

(b) The speaker is an aggressive and maniacal war-monger

- (c) The speaker is not satisfied with the conquest of the island
- (d) The speaker is a patriot urging the defence of his motherland

Q2. The speaker in the passage wants to go on fighting because:-

- (a) He is a raving lunatic
- (b) He is in a state of utter despair
- (c) He expects help from other quarters
- (d) He is the leader of a suicide squad

Q3. Which of the following pair of the phrases helps best to bring out the intention of the speaker?

- (a) "Go on to the end"," shall never surrender"
- (b) "Growing confidence", "subjugated and starving"
- (c) "Subjugated and starving", "fighting on the landing ground"
- (d) "Fighting in the streets", "subjugated and starving"

Q4. The passage consists of repetitive patterns in syntax and vocabulary. The effect of this style is that it -

- (a) Reveals the speaker's defects in giving a speech
- (b) Produces the impression of bad poetry
- (c) Conveys the speaker's helpless situation
- (d) Reinforces the speaker's basic intention
- Q5. The tone of the speaker is -
 - (a) Pleading and urging
 - (b) Inspiring and encouraging
 - (c) Discouraging and gloomy
 - (d) Menacing and bullying

In each of the following, choose the word most similar in meaning to the word given in capitals.

- Q6. 'MEDDLE'
 - (a) Disregard

(b) Overlook

(c) Interfere

(d) Free

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(c) They are characters from various dramas. (f) They were romantic heroes

Continued 1.6

Vesovius : Etna : Kilimenjaro Q/2(a). These are sites of volcanoes. (b) These are talend countries. (c) These are fulls of Italy. (6) These lie in polar region. Q73. Knot : Watt : Fathern (b) The forms are used by seriors (b) The terms are used to installing significity (c) The terms are connected with rope (d) They are unity of measurement, Berugi : Digboi : Aphleshwar Q74. (a) They are famous for all fields. (b) They are famous religious places. (c) They are lounst places of South India. (d) They are famous for hardhome 075 Knight , Rook Gistion (a) These are missionaries. (b) These are churchmen. (c) These are cheasman. (d) These are ranks of military. 076 Abhi Shatiacharya : Utpal Dutt : Salyajit Ray (a) They are character actors. (b) They are directors of Bengali movies. (c) They are famous poets and writers. (d) These parsonalities belong to Bangal UN 2 Voodoo : Screery : Necromancy (a) They are ancient acts found in soulidaries. (b) They are terms connected with black magic. (a) They are endient scripts. (d) They are means of communication of pre-historic age. G78. Rourkela : Bokaro : Durgepur (a) They are steel plants. (b) They have coal mines (c) They have stomic power plants. (d) They are on the see coast. C79 Spinach Fenugreek Celery. (a) These are captus plants. (c) These are wroiplants. (c) These are wild flowers. (d) These are leasy vagetables.

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- Q80. Yesta ; Ghalib : Kabir
 (a) They were social reformers
 (c) They were saints
- (c) They were famous poets.
- (d) They were yoga instructors.

<u>Direction:</u> There are two sets of figures namely the Problem figures containing *6we* figures 1, 2, 3, 4, 5 and answer figures (a), (b), (c), (d). You have to select one figure from the Answer figures which will continue the same series as given in the Problem figures.



Continued,



<u>Direction</u>: The following satisfies involve a closter of three of more geometrical figures, having one or more dots placed at any polar sisted the cluster. This cluster is followed by a set of four alternative figures each composed of a cluster of the same type of figures. Now, for each dott we have to observe the region in which it is eaclosed i.e. in which of the geometrical figure this region is common.

From amongst the figures marked (c), (b), (c) and (d), select the figure which satisfies the same conditions of placement of the dot as in fig. (X).



<u>Direction</u> In this postion, a figure is given as an original figure (X) followed by four above: figures. The original figure is embedded or hidder, in one of the above: figures, (a, b, c, δ, a) . Seech the elternative that carries the correct hours which clearly specks the stratedded position of the original figure.



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(X) (a) (b) (c) [d] <u>Direction:</u> In each of the following questions, a part of the figure is missing. Find out from the given options (a), (b), (c) or (d), the right figure to fit in the missing figure (X).

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8



<u>967 - 3</u>

instructions for candidates

TOTAL MAKS 340 TIME ALLOTTED - 2 HPLS

1. Total No. of Quartieve-100, Each Question is of three marks.

- 2. One surface will be deducted for every among answer.
- 5. Go and write or reack on the Question Paper-
- Constitute Paper to be retarged before ineving the Ellem Mail.

Read the following passage carefully and enswer the questions given taken it.

Educational planning chould aim at meeting the aducational heads of the entities population of all age groups. While the participation as a finite layer bearingly from the principly stage to the university represents the core, we allouid not overkede the periphery attacts a capacity impartance. Under modern conditions, working need to rewind, or create the aged base made an emprove these skills as each at 99 environ protects, should take care of the needs of everyone.

Our structures of education have been built up on the essentiation field there is a terminal point to education. The trans dates: has became ab the more harmful today. A UNESCO report emiliat 'Learning to be' propared by Edgar Faure and others in 1973 passets that the aducation of children must propare the future aduct for various forms of self-learning. A vasile aducation equipment future should consist of modules with different kind of functions serving a drawing of constituents. And performance not the period of study, should be the basis for credenting. The writing a already on the well.

In view of the fact that the significance of a convectment of Molong learning and Relime education is being discussed only in recent years even in aducationally advanced countries, file possibility of the loss becoming an integral part of aducational thinking seems to be a far sty. For, is more in that draction means so much mare than some simple representer of the present organisation of aducation. But a good beginning can be made by developing Open University programmes for older teaments of different categories and integrals when to cooperate with convertional colleges and schools. Also, these institutions should learn to cooperate with convertions community organisations such as Horaries, musicular manufactulity programmes, institutions etc.

- Q4. Where is the mean throat of the author?
 - (a) Teadlonal systems should be strengthened
 - (b) Formal education is more impostant than non-formal.
 - (c) One should never again to learn
 - (d) It is impossible to meet the needs of everyone.

Q2. What should be the major characteristic of the baure aducational system?

- (a) Definient modules with same function
- (b) Same module for different groups.
- (c) No modules but standard compulsory programme for all
- (d) None of the above

CIS. Approximg to the multist, what measures should spin university adopt to prest modern considered?

(a) Develop various programmes for adult immunity.

- (b) Open more colleges on Veolitional lines
- (c) Ceter to the needs of those who represent 'core'.
- (c) Primary education should be under the control of open universifies.

Q4 In the context of the passage, whet is the meaning of the sentence "The writing is abaptly on the wat"?

- (e) Everything is uncertain now-e-days
- (b) Changes have already taken alace.
- (c) The signs of change are already visible
- (d) You cannot change the luture.

			,				×*)			
in each of the following questions, find out which part of the sentence has an error. If there is no minimum, the answer is (d) "No error".										
Q5.	<u>li waa a veer since</u> (e)	() Iboei	v <u>ed any leiter</u> / (b)		i <u>v sister</u> / <u>No er</u> si fol	<u>70</u> 0				
Q6	His family members	108 <u>9 37</u>	tive / <u>any mon</u> (b)	neni (t	ick / <u>No-enro</u>	Ľ.				
40	He want to office / <u>t</u>	xuq relur (ned beca / hom	<u>errynn er</u> (a)	e <u>diate</u> jy. / <u>No er</u> idi	<u>тт</u>				
Q8.	The two brothers amicably dender ' their parents' property ' attemp them ' the error									
C 8	tev (d) <u>Tisattam e hich éstatemi</u> s, st <u>andard</u> / <u>m his college Sund worked</u> k <u>eid</u> / (e)									
since morning till might / No excert. (c) (d)										
Pick out the most effective word from the given yeards to fill a the blank to make the sector the make the sector interview.										
Q10.	Mohini o an indepe	noent a	ng innovedive 1	hinker.	Merelore dis	besi ta	grant her a good			
deal (¥with regard to ⟨a⟩ ≉everage	(b)	ter ted to nod ter incereant	eerch (u)	associance	(d)	maney			
Q11.	The of me	at in ye	volisregenter nuc	does	not mecessarily	indicat	le ituat you are a			
veg el	arian. (al presence	(b)	absence	10]	amount	(d)	colorin			
Q12 be	Due to the rise of	11 5 0 (11)	edia technolog	y, men	y people pradi	ci news	spapers will soon			
	(al obschale	(6)	npidinyone	101	commonplace	e (d)	weitespresid			
273.	Attantion to degati s (a) hailmark	ре (ð)	ofasfine-ca slamp	afisma (c)	n evénenticey	(d)	show			
Q14	Although the two sis (a) alike	ilers an {b}	hwins, they fou Unique	k sovne (c)	ewhat different	(4)	related			
<u>in each of the following choose the word most similar in meaning to the word given in</u>										
Q15	VENERATE (8) Reject	(b) é	Коточе	HC)	Love	(b)	Respect			
016	VACILLATE 12) Wäver	(Ы	Dismingrate	(a)	Relegate	(d)	Salue			
Q 17.	F£LIGITY (=) Zeal	(Ь)	Excitoment	(0)	Happiness	4d;	E opertise			
Pick out the word that is most nearly the opposite in meaning (a the word given in										
<u></u>										
018	MYSTERIA (al Diserse	(b)	Geremony	[c]	Serendy	(d):	Frenzy			
019	AÐSTAIN (al Indudge	10)	Desmiss	[c.:	Repai	(0)	Acquire			
020	SHDENTARY									

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Ghoose the correct energy.

Q24	The fan (8)	nous Grand Tin Alabes	mak(GT) (b) A	Road fro Ashok	am Per ju	shawar :) She	to Kolluria wa ar Shah Suri	sbull;h (d) (y - Chandragupilés
Q22 es Noi	The As	hoka Pilar who oblem is allunia	nse i kom si an-	Capitol (Garyin	igi was	adopted by P	ię Gove	enment of India
	(a) Va	(B-85)	(bi F	Pun	6	c) f	Prayag	(d)	Samath
Q23.	The Pn (8) (0)	samble of the (Members of C/ Jawaharisi Ne	; amanintant ananantaharam hiru	ion of Ind I Assemi	la vas bly (i (i	prepa b) i d; i	reð by- BR Ambedkær Dr Redhekrst	inar	
Q24	The tex (0) (0) (0) (0)	o great revolute Bhagat Singh Bhagat Singh Chandrashekt Bhagat Sungh	onarias & BK Du & Chank & Ashiai & Ashiai	aho Baan Al Ingehekho I Bioma K URah Ki	wasibo aw Azer hain	mber L	egintative Ass	embiy v	rené-
Q25	'Duckw (e)	north Lawis Rui Lawn Tennas	e'isuse (b) Cr	d in the g iclicit	perinta C 1	¢i- c) Ba	eskotbół	(0) R.	ngioy
Q25.	Oronak (a) (c)	sharya awaro d Sports Angaawadi	gwen ti	er ostábar (b (d	naing a s) S l) I	sontribu Sarv Şh Vuşic	tion in the link Statut Abhryse	doľ. 1	
C227.	441no # (a) (c)	as the first ind Junko Tabel Octo Benerice	yan warm	en to chin t c	nto Malaok 2) 2)	uni Evé Bacher Samani	rest? Adri Pet Vacha Chensi		
Q29	The fit (=)	st Olympic Gar Rome	ncas vrzi) (2)	e heki in Adhens	1896 e	al - (c)	Para.	(d)	Lendón
C)29.	india ((a)	ops the world it Aluminium	(b)	tion of - Capper	I	(c)	Chromite	(d)	Nice
G30	0PT V (8) (0)	posine dees no Teterus Diphtheris	i gwe pi	utaction I () ()	to e ch b) d)	did from Polico Wheep	n- ing Cough		
Q 31	Wittet ((2)	will be the colo White	yrcdişin (Þ)	of rane w Benck	men it	ia accen (c)	i through gree Pink	n (9686 ? (d)	Brown
Q32	Which (a) (b) (c) (d)	one of the faile To introduce To ratily deck To impeech t To pass No C	owing ta Money E anation a he Presi Xmficien	ine quelu M. FEmerga dent ce Moger	nnive p nncy. n ngar	ower of nel Cost	itine Lok Sabi nçi ol Minaste	487 Na.	
¢3 3.	indige (a)	ancusty built au BrainMos	parsonic (b)	Pritivi	inelle	ie lonow I¢ł	muanai- Neng	(d)	Авля
Q34	Whest (e)	n one of the toll Pee	owing ci (b)	opa enco Suntos	ines ni Gr	itogen (c)	content in the Poteto	80H? (6)	Wheart
Q34.	Whet	n of the followin	ų penad	isai wind	s biov	ing tro	m sea to land	CAUSE 5	anne monecon
	∎⟩	East Mean	(b)	North E	64 1	(C)	South West	(d)	South East

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Q36. India's permanent research station "Datahin Cangom" is situated in the -Great Hematayaa (b) Indian Ocean 4**2**) Arabian Sea (d) Amarctica 에드는 O)? Which one of the following is the busiest ocean route in the world? Indian Ocean (b) Pacific Ocean ía'i -North Atlantic Ocean South Atlantic Ocean (4) la) Q38 Detence Services Staff College is located at -(g) Khadakvanala (b) Secunórabadi (c) Dehradun (d). Weilington Q39. The United Nations Organisation responsible to maintain international prace & security was established on 24 October in the year -(e) 1920 (b) 1945 (c) 1939 (b) 1942 D40. Who authored the book "Freedom is' Mixinght" 2. Seiman Rushdie (b) Charles Cackens (a) – Mahatma Gandhi रंखाः Larry Collins and Donarique Laterry (6) Q41. The number of gats in a class is five times the number of boys. Which ν' met β awing cannot be the total number of children in the cases? 24 (b) 30 (c) 35 ıdı. 54 (a) Q42 Ram went to a shop to buy 60 kg of noe. He bought two varieties of noe which cost him € 4.50 per kg and € 5 per kg. He spent a lotal of ₹ 240. What was the quantity of the cheaper nce pulchased by hem? 25 Kg (c) 30 Kg (d) 187 20 Kp (6) None of these Q43 A risen has \$ 540 in the denominations of one rupes, five rupes and ten rupes notes. The number of each type of notes are equal. What a the total number of notes he has? 150 90 IC) (d) 120 60 (D) (B) Q44 The evenues of five consecutive odd numbers is 61. What is the difference between highest and lowest number? 2 5 я 12 (**b**) 4GH ćđΪ) (a) Q46 Jayesh is twice as old as Vijay and half as old as Sureith. If the sum of Vijay's age and Suresh's ega is 86 years what a five age of Jayesh? (b) 36 years 68 years (e) 34 years (¢) (d) 24 years O46. A cricketer has an evening or 30 rars in 14 mnings. How many runs should be ecore in his next invergs to achieve an average of 32 runs? (m) 85 (6) 60 (D) 55 (d) 50 Q47. What percentage of profit should be added in the cost price of an item so as to gain a profit of 32% effect allowing 5% discount to the customer? |≥; 46 (D) 40 ICI. 50 (dí) dA, Q48 If the manufacturer gains 10%, the wholesale dealer gains 15% and the retailor gains 25%. Find the cost of production of a table. The retail price of table is 7 1265 -₹ 11B0 (a) **7**800 (b) 🕴 1000 IGI -**3 950** (d) Q49 A loss of 19% on a shin gets converted into a profil of 17% when the setting price is moreased by 7 162. What is the cost price of the shirl? ₹ **54**0 (b) **₹4**50 F 600 Id) ₹ 360 (B) IC) Q50 M an examination 75% of the total students passed in English and 65% uassed in Mathematics, white (5% failed in English as wet as Mathematics, 1% a total of AP, candidates ы. ìυ. ١., 1.10 ALC: N 166

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Q51. When the price of a product was increased by 15%, the number of films sold will decreated by 20%. What was the net effect? 8% koes 4% pain 10% gain (b) 6% keep I¢) (d) ća i Q52. A mixture of 40 three of malk and water contains 10% water. How much water should be added to this modure so that the new modure contains 20% water? (c) 5.5 intres (d) 7.5 libes 4 63 65 (b) 5 lbes (at -Q53. The ratio of three numbers is 3/4/5 and the sum of their squares is 1260. The sum of the three warrhors 6 -(a) 30 50 國的 (d) 90 (b) (c) Q54 The average age of three boys is 25 years and then ages are in the proportion 3:5.7. What is the age of the youngeal boy? 15 years 18 years (0) 24 увать (d) 13 years ca) (51 OS5. A man has tew here and cowe. If the total number of heads are 46 and the intel number os feet are 140, then the number of lvens are -26 !**;;;**` 22 (br) 25 (c). 24 (#1 205 A certain sum of monny becomes three times of itself in 20 years at simple interest. In how many years withing initial sum become double of the same rate of simple inferest? 12 (A) а ζÞF 16 4c'i (d) Q57. Rem borrows ₹ 8000 at 12% p.e. simple interest and Mohan borrows ₹ 9100 at 10% p.e. simple interest. In how many years will they borrowed amounts (debt) be equal? 20 le) 24 78 (%) 22 (0) (a) – Q58. Reans took a roam of 7 1200 with simple interest for a cartain numbers of years. The number of years are same as the interest rate. If she has paid ₹ 432 as interest at the end of the loan period, whet was the rate of interest? D) 12 (d) None of these le) 36 6 (2) Q59. A student was asked to divide a number by 3. But malesd of dividing it he multiplied it by 3 and got 29 7as the ensures. What was the cornect answer had he not made the mistake? (**b**) 8.8 (d) 9.9 83 (a) -33 ICF OS0. Which of the following fraction is the smallest? 33/52 9/13 (b) 17/26 6a) 28/39 IQF [អ] Each question consist of two words which have a pertain relationship to each other, toilowed by four pairs of releted words. Select the pair which has the same relationship. STORY NOVEL Q61 (at Sea Ocean (b) School : Unwersary Book Dictionate Poetry Drama (c) (d) O6Z GRAIN SALT Shard : Pollery Shred Wood (9) ę۵). Chips Glass ier. Bades . Greek łd۶. 063 WAITER TIP (#) I Student Marks. Worker · Bonus (10) Employee Wages Clerk Bribe (er (b) Q64 PAIN, SEDATIVE Gnel Consolation Cornton Slimulant (b) ie). ter. Trance Narcosto id+ Ache Exwaction ۰. Language : Dear Gal LINGECT CONTINU LĽ. Voice Vibreton Tangue : Sound (d) CL

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986	WAN COLOUR (al Corputent Weight (c) Palint Complexion	(b) (d)	Imapid . Flavour Engmatic : Puzzle
Q67	PORK : PtG (e) Rooster : Chiakon (c) Stoer : Boof	(b) (d)	Mutton: Sheep Lobater : Crustecean
368	AFTER: BEFORE (a) Fitst: Second (c) Contemporary : Heltoric	(b) (d)	Present Pari Successor Predecessor
(169	EAST . ORBENT (a) North: Polar (6) Waart: tydaan	(마 (마	South Capricom Weel : Occident
Q70.	DISTANCE, MILE (a) Liquid , Litre (6) Weight Scale	(b) (d)	Bushel : Com Fame : Television
071	TEN: DECIMAL (8) Seven : Septet (6) Two : Binary	(b) (d)	Four - Queriet
07 2.	MUNDANE SPIRITUAL (=) Common Chosely (c) Roubre Novel	(D)	Worldly . Unworldly Secular : Clancal
Q73.	LAWYER COURT (#) Businessmen : Market (c) Labourer . Factory	(b) (đ)	Chemist . Laboratory Athlete : Olympics
Q74.	ARMY: LOGISTIC(; (8) Busines; Stategy (6) Wer: Logic	(b) (d)	Goldver : Situalenta Tearn : Individual
075	GRAVITY: PULL (a) Iron : Metai (C) Magnelism : Allination	(b) (d)	Nonih pole : Dwectons Duzi : Desenj
Q76.	FILTER WATER (a) Curtail; Activity (c) Edit Text	(b) (đ)	Expunge : Book Censor : Play
077 .	HOPE:ASPIRES Int Lour-Elevates IC) Flo:Lie	10) (d)	Film Flam Fake . Ondinaty
078.	GAONST:PAIN (si Killer Dealth (c) Injury.Bandage	(b) (d)	Teacher : Pupit Alcohol : Dipsomeruge
Q79	SYMPHONY : COMPOSER (a) Leonardo : Music (5) Colours : Patet	(b) (d)	Franco : Painter Art - Apprecision
080	CURATOR : MUSEUM (a) Will: Wadom (c) Manager : Office	(b) (d)	Bank Tellar Doctor : Patieni
Q91.	Withich word is each yet of four is the 18. Look (h) See	e ookt on	eout? (5) Watch (d)

Set-2

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(d) Face

C62. SOCK #	Trinsi stor	eat requires yo	nu no ide	willy the rela	ionship	between 1w) words	Shoe is to lool es
	(6)	wind	(b)	Nand	(c)	foot	(0)	leg
U 83	Я р ыак (ө)	ed means the s calm	uanne as (b)	the opposite angry	of – (¢)	ben se	(네)	ole o p
C(64	V/hich 1.4.7	i number come 10 10 18	e nepri e	the series?				•
	- ≡ 	17	(Ы	19	(=)	21	{d;	None of Dase
Q65	When 0131	number come 5 10 16	s next u	the serves?				
	(e)	19	(b)	21	(¢)	26	비	32
Q95.	Looka	ecthis series 3	6, 34, 3	0.28 24.	whet nu	mber should	come ne	9 2 17
	181	20	(b)	22	(a)	23	(6)	25
067.	Look :	at this series 2	2 21.2	3. 22 24 23.	wh	at number al	Yould con	ne next?
	(6)	22	(b)	24	(=)	25	(d)	26
C89.	Loos, a	t this senes 5:	3 53,40	, 40 27 27.	wha	i number sh:	ould cam	e next?
	(a)	12	(a)	14	15)	27	(0)	50
Qati	LCOA a	t this senes. 8,	22, 8, 2	29 8, . Wm:	al numbe	er should can	no next?	
	(a)	9	(b)	34	(a)	29	(4)	32
090	Lock	at this series: 3	1, 29, 2	4 22, 17	What ru	annher sincula	i come n	exi?
	(8)	15	16}	:4	(c)	13	(b)	17

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This set of questions is based upon the continuation of figures m a logical manner. There is a sequence of figures depicting a change step by step. Select one of figure from the four choices shown as (e), (b), (c) 5 (d) which will continue the sequence.



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Which symbol in the Answer Figure completes the sequence in the problem Spirit – CSS.



There are cartain common characteristics/properties between the two problem figures. Select a figure from antoquet the Answer Figures which shows smiller characteristics/ properties as shown by the problem figures.

Q96.



Your task how is to look at the target figure and decide which of the rotated lightee below is identical to it. If you do not blick any of the figure is the same as the target shape then choose the answer option (a) 'none of Break'.



Your task here is to look at the series of four figures and work out the rule which links then all. Choose which of the three following figures obey that rule and identify the one which does not.

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AFCAT Model Question Paper-I

1(d)	2(b)	3(d)	4(b)	5(a)	6(d)	7(c)	8(a)	9(d)	10(d)
11(c)	12(c)	13(b)	14(a)	15(b)	16(b)	17(c)	18(c)	19(d)	20(c)
21(c)	22(a)	23(c)	24(c)	25(c)	26(b)	27(a)	28(d)	29(a)	30(c)
31(b)	32(b)	33(d)	34(a)	35(d)	36(c)	37(a)	38(a)	39(a)	40(a)
41(a)	42(d)	43(b)	44(c)	45(c)	46(b)	47(a)	48(d)	49(b)	50(b)
51(b)	52(c)	53(d)	54(c)	55(c)	56(c)	57(d)	58(d)	59(c)	60(b)
61(c)	62(c)	63(a)	64(b)	65(a)	66(d)	67(d)	68(a)	69(c)	70(a)
71(d)	72(c)	73(c)	74(d)	75(c)	76(c)	77(c)	78(c)	79(d)	80(c)
81(d)	82(c)	83(a)	84(b)	85(d)	86(c)	87(c)	88(a)	89(d)	90(c)
91(c)	92(c)	93(a)	94(d)	95(c)	96(a)	97(b)	98(c)	99(c)	100(d)

AFCAT Model Question Paper-II

1(b)	2(a)	3(d)	4(a)	5(b)	6(a)	7(d)	8(c)	9(a)	10(d)
11(c)	12(b)	13(d)	14(c)	15(b)	16(c)	17(a)	18(b)	19(d)	20(d)
21(b)	22(c)	23(c)	24(c)	25(d)	26(c)	27(c)	28(a)	29(c)	30(b)
31(c)	32(c)	33(a)	34(b)	35(a)	36(c)	37(c)	38(c)	39(d)	40(d)
41(c)	42(b)	43(b)	44(c)	45(d)	46(c)	47(b)	48(b)	49(d)	50(a)
51(d)	52(c)	53(a)	54(a)	55(a)	56(a)	57(a)	58(d)	59(b)	60(c)
61(c)	62(b)	63(a)	64(d)	65(b)	66(d)	67(c)	68(d)	69(c)	70(c)
71(d)	72(c)	73(a)	74(d)	75(a)	76(b)	77(d)	78(d)	79(c)	80(a)
81(d)	82(c)	83(c)	84(c)	85(a)	86(c)	87(d)	88(c)	89(c)	90(c)
91(c)	92(d)	93(a)	94(b)	95(c)	96(a)	97(d)	98(c)	99(c)	100(c)

AFCAT Model Question Paper-III

1(d)	2(c)	3(b)	4(a)	5(d)	6(d)	7(b)	8(c)	9(c)	10(c)
11(c)	12(d)	13(a)	14(a)	15(a)	16(b)	17(c)	18(d)	19(c)	20(c)
21(d)	22(c)	23(a)	24(b)	25(b)	26(d)	27(d)	28(a)	29(a)	30(a)
31(b)	32(d)	33(c)	34(b)	35(a)	36(d)	37(d)	38(a)	39(b)	40(b)
41(c)	42(a)	43(c)	44(b)	45(b)	46(d)	47(b)	48(c)	49(b)	50(a)
51(d)	52(a)	53(d)	54(b)	55(b)	56(b)	57(c)	58(a)	59(b)	60(b)
61(d)	62(d)	63(c)	64(b)	65(c)	66(b)	67(c)	68(c)	69(d)	70(b)
71(c)	72(a)	73(d)	74(d)	75(b)	76(b)	77(d)	78(c)	79(c)	80(b)
81(a)	82(c)	83(c)	84(d)	85(d)	86(b)	87(c)	88(b)	89(c)	90(d)
91(b)	92(d)	93(d)	94(a)	95(c)	96(a)	97(c)	98(d)	99(b)	100(d)

AFCAT Model Question Paper-IV

1(d)	2(a)	3(c)	4(c)	5(c)	6(d)	7(d)	8(c)	9(a)	10(b)
11(b)	12(c)	13(b)	14(c)	15(a)	16(a)	17(b)	18(d)	19(c)	20(a)
21(d)	22(d)	23(b)	24(c)	25(c)	26(a)	27(a)	28(d)	29(d)	30(a)
31(d)	32(b)	33(a)	34(a)	35(a)	36(b)	37(b)	38(d)	39(b)	40(c)
41(c)	42(d)	43(a)	44(d)	45(c)	46(d)	47(b)	48(b)	49(b)	50(c)
51(b)	52(d)	53(d)	54(c)	55(b)	56(c)	57(a)	58(d)	59(b)	60(b)
61(b)	62(c)	63(a)	64(b)	65(b)	66(d)	67(b)	68(c)	69(a)	70(d)
71(d)	72(d)	73(a)	74(c)	75(c)	76(b)	77(c)	78(c)	79(d)	80(b)
81(c)	82(d)	83(b)	84(c)	85(b)	86(a)	87(c)	88(b)	89(d)	90(d)
91(b)	92(d)	93(a)	94(c)	95(d)	96(c)	97(b)	98(b)	99(d)	100(c)

EKT Model Question Paper (Computer Science)-I

<u>Instru</u> 1. 2. 3. 4.	<u>ctions</u> Total One n No ma Do no	for Candidate No. of Questic nark will be de ark will be ded of write or mak	<u>s</u> ons 50. educted lucted f re any r	Each Q I for eve for un-a mark or	Question ery wro attempt n Quest	n is of ong ans ed que ion Pa	three i swer. stions per.	<u>Time Al</u> marks.	llotted:	<u>45Minutes</u>
Q1.	If the o at the	centre of a circl origin is	le is (-6	,8) and	it passe	es throu	igh the	origin, tł	nen equ	ation to its tangent
	(a)	2y=x	(b)	4y=3x		(c)	3y=4	х	(d)	3x+4y=0
Q2.	The lid of 2:1 amour	quid is flowing a , if the ratio of nts of the liquid	separat f the ve flowing	tely thro elocities per see	ugh ead of flow c throug	ch of tw / in the h the p	vo pipe two p vipe wil	s whose pipes by I be	diamet 1:2, the	ers are in the ratio en the ratio of the
	(a)	2:1	(b)	1:1		(c)	4:1		(d)	1:8
Q3.	If $f(x)$	$x) = x + x^2 - 8 $	3 then	the der	ivative o	of $f(x)$	at <i>x</i> =3	is		
	(a)	6	(b)	7		(c)	8		(d)	-8
Q4.	4. Given $P(A) = 1/4$, $P(B)=1/3$ and $P(AUB)=1/2$. Value of $P(A/B)$ is									
	(a)	1/4	(b)	1/3		(c)	1/6		(d)	1/7
Q5.	The a	ngle between ty	wo vect	ors a =	i+2j-k a	and b=2	2i+j+k	is		
	(a)	30 deg	(b)	45 deg	9	(c)	60 de	eg	(d)	90 deg
Q6.	Newto	on is unit of forc	e. It is t	the unit	in					
	(a)	MKS system			(b)	CGS s	system			
	(c)	FPS system			(d)	None	of thes	e		
Q7.	A Fara	ad is defined as	6							
	(a)	stat coulomb	/volt		(b)	coulor	nb/volt	t		
	(c)	coulomb x vo	lt		(d)	stat co	oulomb	x volt		
Q8.	Perme	eance of a mag	netic ci	rcuit cor	respon	ds to th	e follo	wing qua	ntity in o	electrical circuit
	(a)	conductivity	(b)	resistiv	vity	(c)	cond	uctance	(d)	resistance
Q9.	Hydro	meter is an ins	trument	t for mea	asuring					
	(a)	relative humic	dity		(b)	pressu	ure of v	water		
	(c)	volume of liqu	uids		(d)	specif	ic grav	ity		
Q10.	Radio	activity is a pro	perty of	f						
	(a)	atomic nuclei			(b)	excite	d elect	ron		
	(c)	gamma rays			(d)	ultravi	olet lig	ht		
Q11.	lf a pla	ane is parallel t	o the pl	ane of p	projectio	on, it ap	pears			
	(a)	true size			(b)	as a li	ne or e	edge		
	(c)	foreshortened	ł		(d)	as an	obliqu	e surface	;	
Q12.	How is	s a J-K Flip Flo	p made	to togg	le					
	(a)	J=0, K=0	(b)	J=1, ł	<= 0	(c)	J=0,	K=1	(d)	J=1, K=1
Q13.	No. of	flip-flops used	in deca	ade cour	nter					
	(a)	3	(b)	2		(c)	4	(d)	None	of these

				-									
Q14.	The d	ecimal equivale	ent of th	ne hexadecima	al numbe	er E5 is							
	(a)	279	(b)	229	(c)	427	(d)	3000					
Q15.	Which	n part of the cor	nputer	is used for cal	culating	and comparin	g?						
	(a)	Disk unit	(b)	Control unit	(c)	ALU	(d)	Modem					
Q16.	A CPI	J's processing	power i	is measured in									
	(a)	IPS	(b)	CIPS	(c)	MIPS	(d)	nano-seconds					
Q17.	Which	n computer mer	nory is	volatile?									
	(a)	RAM	(b)	ROM	(c)	EPROM	(d)	PROM					
Q18.	The c	omputer code f	or the i	nterchange of	informat	tion between t	erminals	s is					
	(a)	ASCII	(b)	BCD	(c)	EBCDIC	(d)	All of these					
Q19.	Which of the following is not a sequential storage device?												
	(a)	Magnetic disk	(b)	Magnetic tap	be (c)	Paper tape	(d)	All of these					
Q20.	The d	ata recording a	rea bet	ween the blan	k gaps o	on magnetic ta	pe is ca	lled a/an:					
	(a)	record	(b)	block	(c)	field	(d)	database					
Q21.	On a	systems flowch	hart, the	e online manu	al keepi	ng of input da	ta is ide	entified by using the					
	(a)	online storage	e symb	ol	(b)	online keybo	oard syn	nbol					
	(c)	keeping operation	ation sy	/mbols	(d)	manual operation symbols							
Q22.	An ex	ample of a hier	archica	I data structure	e is								
	(a)	array	(b)	link list	(c)	tree	(d)	ring					
Q23.	Which into o	Which of the following system software does the job of merging the records from two files into one?											
	(a)	security softw	/are		(b)	utility progra	m						
	(c)	networking so	oftware		(d)	documentati	on syste	em					
Q24.	Virtua	I Memory											
	(a) portio	is a method ns, or pages ar	of men nd core	nory allocation is subdivided i	i by whi into equ	ich the progra al portions or l	m is su blocks	ibdivided into equal					
	(b) of a c	consists of th	ose ad	dresses that m	ay be g	enerated by a	process	sor during execution					
	(c)	is a method o	of alloca	ating processor	[.] time								
	(d)	allows multipl	e progr	ams to reside	in sepai	rate areas of c	ore at th	ne time					
Q25.	Which	n is a permaner	nt datab	base in the gen	eral mo	del of compile	r?						
	(a)	literal Table			(b)	identifier Tal	ble						
	(c)	terminal Table	е		(d)	source code							
Q26.	Opera	ating system fur	nctions	may include									
	(a)	input/output o		(b)	virtual storage								
	(c)	multi-program	nming		(d)	all of these							
Q27.	Moving process from main memory to disk is called												
	(a)	scheduling	(b)	caching	(c)	swapping	(d)	spooling					

- Q28. In which addressing mode the contents of a register specified in the instruction are first decremented, and these contents are used as the effective address of the operands? index addressing indirect addressing (a) (b) (c) auto increment (d) auto decrement Q29. In order to allow only one process to enter its critical section, binary semaphore are initialized to 0 2 3 (a) (b) 1 (c) (d) The outstanding Invoice file should be stared on a Pardon Access Storage Device if Q30. invoice data entry is on-line (a) payment recording is done in a batch rode (b) inquiries concerning payable are to be answered on-line (c) last record points to the first record (d) Q31 In SQL, which command(s) is/are used to enable/disable a database trigger? ALTER TRIGGER (b) ALTER DATABASE (a) ALTER TABLE (d) MODIFY TRIGGER (c) Q32. The modify operation is likely to be done after Delete (b) Look-up Insert (d) all of these (a) (c) Which of the following is not a logical data-base structure? Q33. relational (d) chain (a) tree (b) (c) network Q34. Which of the following tools is not used in modelling the new system? (a) decision tables (b) data dictionary (c) data-flow diagrams (d) all of these Q35. Difference between Decision-Tables and Decision Tree is (are) : (a) value to end user (b) form of representation one shows the logic while other shows the process (c) (d) all of the above Q36. The reservation system of Indian railways is an example of transaction processing system (a) (b) interactive decision support system management controls system (c) (d) expert system Q37. The network layer, in reference to the OSI model, provide data link procedures that provide for the exchange of data via frames that can be (a) sent and received the interface between the X.25 network and packet mode device (b) the virtual circuit interface to packet-switched service (c)
 - (d) all of the above

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Q38.	Which of the following is an important characteristic of LAN?												
	(a)	application in	depend	ent interfaces									
	(b)	unlimited expa	ansion										
	(c)	low cost acce	ss for lo	w bandwidth	channel	s							
	(d)	parallel transr	mission										
Q39.	Which from o	of the following the machine to	ng TCP	/IP protocol is r?	s used f	or trans	sferring	electroi	nic mai	l messages			
	(a)	FTP	(b)	SNMP	(c)	SMTF)	(d)	RPC				
Q40.	The sl	owest transmis	sion sp	eeds are thos	e of								
	(a)	twisted-pair w	vire	(b)	coaxia	ial cable							
	(c)	(c) fiber-optic cable (d) microwaves											
Q41.	How r Identif	nany digits of ication Code)?	the Ne	twork User A	ddress	are kno	own as	the DN	NIC (Da	ata Network			
	(a)	first three	(b)	first four	(c)	first fiv	/e	(d)	first se	even			
Q42.	The most flexibility in how devices are wired together is provided by												
	(a)	bus networks	(b)	ring network	s (c)	star n	etworks	(d) T-	switche	ed networks			
Q43.	An FM signal contains intelligence in												
	(a)	it's frequency	variatio	ns		(b)	it's am	plitude	variatio	ons			
	(c)	both amplitud	e and fr	equency varia	ations	(d)	none o	of these	;				
Q44.	In PCI	V system											
	(a)	a large bandv	vidth is I	required									
	(b)	the biggest di	sadvant	tage is its inco	mpatibil	ity with	TDM						
	(c)	companding i	s used t	to overcome c	quantisin	g noise							
	(d)	none of the al	bove										
Q45.	The al	I-day efficiency	of a tra	ansformer dep	ends on								
	(a)	its copper los	S			(b)	its iron	loss					
	(c)	both (a) & (b)				(d)	None	of these	Э				
Q46.	Slip rir	ngs for inductio	n motor	are made of									
	(a)	copper	(b)	aluminium	(c)	carbo	n	(d)	phosp	hor bronze			
Q47.	One o	f the characteri	istic of s	single phase n	notor is t	hat it							
	(a)	is self-starting	9			(b)	is not :	self-sta	rting				
	(c)	requires only	one win	nding		(d)	can ro	tate in o	one dire	ection only			
Q48.	3. If the input to a differentiating ckt is saw -tooth wave then output will bewave								vave				
	(a)	Square	(b)	Rectangular		(c)	Triang	ular	(d)	Saw-tooth			
Q49.	Which	gate acts as u	niversa	l gate?									
	(a)	AND	(b)	NAND		(c)	OR		(d)	EX-OR			
Q50.	A 32 b	it microproces	sor has	word length e	qual to								
	(a)	1 byte	(b)	2 byte		(c)	4 byte		(d)	8 byte			

EKT Model Question Paper (Computer Science)-II

Instru	ctions	for Candidate	s					<u>Time A</u>	llotted:	45 Minutes
1.	Total	No. of Questi	ons 50.	Each Qu	lestior	n is of t	three	marks.		
2.	One n	hark will be do	educted	d for ever	ry wro	ng ans	wer.			
3. 4.	Do no	t write or mal	ke any i	mark on (Questi	ion Pap	per.)		
Q1.	lf a pla	ane is parallel	to the pl	ane of pr	ojectio	n, it ap	pears			
	(a)	true size	·		(b)	as a lii	ne or e	edge		
	(c)	foreshortene	d		(d)	as an	obliqu	e surface)	
Q2.	How is	s a J-K Flip Flo	p made	to toggle)					
	(a)	J=0, K=0	(b)	J=1, K=	=0	(c)	J=0,	K=1	(d)	J=1, K=1
Q3.	No. of	flip-flops used	l in deca	ade count	er					
	(a)	3	(b)	2		(c)	4		(d)	None of these
Q4.	The de	ecimal equival	ent of th	e hexade	ecimal	numbei	r E5 is	i		
	(a)	279	(b)	229		(c)	427		(d)	3000
Q5.	Which	part of the co	mputer	is used fo	or calcu	ulating a	and co	mparing	?	
	(a)	Disk unit	(b)	Control	unit	(c)	ALU		(d)	Modem
Q6.	Differe	ence between	Decisio	n-Tables	and De	ecision	Tree i	s (are) :		
	(a)	value to end	user							
	(b)	form of repre	sentatio	n						
	(c)	one shows th	e logic	while othe	er shov	ws the p	proces	s		
	(d)	all of the abo	ve							
Q7.	The re	eservation syst	em of Ir	ndian railv	vays is	an exa	ample	of		
	(a)	transaction p	rocessii	ng system	า					
	(b)	interactive de	ecision s	support sy	/stem					
	(c)	management	control	s system						
	(d)	expert syster	n							
Q8.	The ne	etwork layer, ir	n referer	nce to the	e OSI n	nodel, p	orovide	Э		
	(a)	data link pro sent and rece	cedures eived	that pro	vide fo	or the e	exchar	ige of da	ta via f	rames that can be
	(b)	the interface	betwee	n the X.2	5 netw	ork and	l pack	et mode	device	
	(c)	the virtual cir	cuit inte	rface to p	acket-	switche	ed serv	/ice		
	(d)	all of the abo	ve							
Q9.	Which	of the followin	ig is an	important	t chara	cteristic	c of LA	N?		
	(a)	application in	depend	ent interfa	aces					
	(b)	unlimited exp	ansion							
	(C)	low cost acce	ess for lo	ow bandw	vidth cł	hannels	6			
	(d)	parallel trans	mission							

Q10.	Q10. Which of the following TCP/IP protocol is used for transferring electronic mail message from one machine to another?											
	(a)	FTP	(b)	SNMP	(c)	SMTP	(d)	RPC				
Q11.	The sl	owest transmis	sion sp	eeds are those	of							
	(a)	twisted-pair w	vire		(b)	coaxial cable						
	(c)	fiber-optic cat	ble		(d)	microwaves						
Q12.	A CPL	J's processing	power is	measured in								
	(a)	IPS	(b)	CIPS	(c)	MIPS	(d)	nano-seconds				
Q13.	Which	computer men	nory is v	volatile?								
	(a)	RAM	(b)	ROM	(c)	EPROM	(d)	PROM				
Q14.	The co	omputer code f	or the in	terchange of ir	formati	on between ter	minals	is				
	(a)	ASCII	(b)	BCD	(c)	EBCDIC	(d)	All of these				
Q15.	Which	Which of the following is not a sequential storage device?										
	(a)	Magnetic disk	(b) Ma	gnetic tape	(c)	Paper tape	(d)	All of these				
Q16.	The da	ata recording a	rea betv	veen the blank	gaps o	n magnetic tape	e is call	ed a/an:				
	(a)	record	(b)	block	(c)	field	(d)	database				
Q17.	On a : (a)	systems flowch online storage	art, the symbo	online manual I	l keepin (b)	ng of input data online keyboa	a is ider rd syml	ntified by using the ool				
	(c)	keeping opera	ation syı	nbols	(d)	manual opera	tion syn	nbols				
Q18.	An exa	ample of a hier	archical	data structure	is							
	(a)	array	(b)	link list	(c)	tree	(d)	ring				
Q19.	Which of the following system software does the job of merging the records from two files into one?											
	(a)	security softw	are		(b)	utility program						
	(c)	networking so	ftware		(d)	documentation	n syster	m				
Q20.	Virtua	I Memory										
	(a) portioi	is a method ns, or pages an	of mem Id core i	ory allocation s subdivided in	by whic to equa	ch the program al portions or blo	is sub ocks	divided into equal				
	(b) of a co	consists of the omputation	ose add	resses that ma	iy be ge	enerated by a p	rocesso	or during execution				
	(c)	is a method o	f allocat	ing processor t	ime							
	(d)	allows multipl	e progra	ams to reside ir	n separa	ate areas of cor	e at the	e time				
Q21.	Which	is a permanen	it databa	ase in the gene	ral mod	lel of compiler?						
	(a)	literal Table			(b)	Identifier Table	е					
	(c)	terminal Table	Э		(d)	source code						
Q22.	Opera	ting system fur	nctions r	nay include								
	(a) input/output control (b) virtual storage											
	(c)	multi-program	ming		(d)	All of these						
Q23.	Movin	g process from	main m	emory to disk i	is callec	ł						
	(a)	scheduling	(b)	caching	(c)	swapping	(d)	spooling				

Q24.	In whi decrer	ch addressir mented, and	ng mode these co	the cor ntents a	ntents (re used	of a re d as th	egi: ie e	ster spe effective	ecified i addres	n the ir s of the	nstruction are operands?	first
	(a)	index addre	essing			(b)		indirec	t addres	ssing		
	(c)	auto increm	ent			(d)		auto de	ecreme	nt		
Q25.	In orc initializ	ler to allow zed to	only on	e proce	ss to e	enter	its	critical	sectior	i, binar <u>y</u>	y semaphore	are
	(a)	0	(b)	1		(c)		2		(d)	3	
Q26.	The o	utstanding In	voice file	should	be star	ed on	аF	Pardon	Access	Storage	e Device if	
	(a)	invoice data	a entry is	on-line								
	(b)	payment re	cording i	s done i	n a bat	ch rod	le					
	(c)	inquiries co	ncerning	payable	e are to	be ar	ารพ	vered or	n-line			
	(d)	last record	points to	the first	record							
Q27.	In SQ	L, which com	mand(s)	is/are u	sed to	enable	e/di	isable a	databa	se trigg	er?	
	(a)	ALTER TRI	GGER		(b)	ALT	ΈF	R DATA	BASE			
	(c)	ALTER TAE	BLE		(d)	MO	DIF	Y TRIG	GGER			
Q28.	The m	odify operati	on is like	ly to be	done a	fter						
	(a)	Delete	(b)	Look-	up	(c)		Insert		(d)	all of these	
Q29.	Which	of the follow	ing is no	t a logic	al data	-base	stru	ucture?				
	(a)	tree	(b)	relatio	onal	(c)		networ	ĸ	(d)	chain	
Q30.	Which	of the follow	ing tools	is not u	sed in I	model	ling	g the ne	w syste	m?		
	(a)	decision tak	oles		(b)	data	a di	ictionary	/			
	(c)	data-flow di	agrams		(d)	all c	of th	nese				
Q31.	How 1 Identif	many digits o	of the N)?	etwork	User A	ddres	s a	are kno	wn as	the DNI	IC (Data Net	work
	(a)	first three	(b)	first fo	our	(c)		first fiv	е	(d)	first seven	
Q32.	The m	ost flexibility	in how d	evices a	are wire	ed toge	eth	er is pro	ovided b	у		
	(a)	bus networl	ks (b) rir	ng netwo	orks	(c)	sta	ır netwo	orks	(d) T-s	witched netw	orks
Q33.	An FM	1 signal conta	ains intell	igence i	n							
	(a)	it's frequence	cy variati	ons				(b)	it's am	olitude v	variations	
	(c)	both amplite	ude and	frequen	cy varia	tions		(d)	none o	f these		
Q34.	In PC	M system										
	(a)	a large ban	dwidth is	require	d							
	(b)	the biggest	disadvar	ntage is	its inco	mpatil	bilit	ty with T	ГDМ			
	(c)	companding	g is used	to over	come q	uantis	sing	g noise				
	(d)	none of the	above									
Q35.	The a	ll-day efficien	cy of a ti	ansform	ner dep	ends o	on					
	(a)	its copper lo	DSS					(b)	its iron	loss		
	(c)) both (a) & (b)						(d)	None of	of these		
Q36.	Slip rii	ngs for induct	tion moto	or are m	ade of							
	(a)	copper (b)	alumi	nium	(c)	cart	oon	1	(d)	phosph	nor bronze	

Q37.	One of the characteristic of single phase motor is that it												
	(a)	is self-starting	g			((b)	is not self-s	tarting				
	(c)	requires only	one wi	nding		((d)	can rotate i	n one di	rection only			
Q38.	If the	input to a diffe	rentiati	ng ckt is	s saw -	tooth wave	then	output will be	<u></u>	wave			
	(a)	Square	(b)	Recta	angular	((c)	Triangular	(d)	Saw-tooth			
Q39.	Whic	h gate acts as ι	universa	al gate?									
	(a)	AND	(b)	NANI	D	((c)	OR	(d)	EX-OR			
Q40.	A 32	bit microproces	sor has	s word le	ength e	equal to							
	(a)	1 byte	(b)	2 byte	e	((c)	4 byte	(d)	8 byte			
Q41.	If the at the	centre of a circ origin is	le is (-6	6,8) and	it pass	ses through	n the	origin, then e	quation	to its tangent			
	(a)	2y=x	(b)	4y=3x	ĸ	((c)	3y=4x	(d)	3x+4y=0			
Q42.	The I of 2: amou	iquid is flowing 1, if the ratio o ints of the liquic	separa f the v I flowin	tely thro elocities g per se	ough ea s of flo ec throu	ach of two w in the tw ugh the pipe	pipe: wo pi e will	s whose diam ipes by 1:2, be	eters a then the	re in the ratio e ratio of the			
	(a)	2:1	(b)	1:1		((c)	4:1	(d)	1:8			
Q43.	If $f($	$(x) = x + x^2 - x $	8 ther	n the de	rivative	of $f(x)$ at	<i>x</i> =3	is					
	(a)	6	(b)	7		((c)	8	(d)	-8			
Q44.	Giver	n P(A) = 1/4, P(B)=1/3	and P(A	AUB)=	1/2. Value	of P(A/B) is					
	(a)	1/4	(b)	1/3		((c)	1/6	(d)	1/7			
Q45.	Perm	eance of a mag	gnetic c	ircuit co	orrespo	nds to the f	follow	ing quantity i	n electr	ical circuit			
	(a)	conductivity	(b)	resist	ivity	((c) co	onductance	(d)	resistance			
Q46.	Hydrometer is an instrument for measuring												
	(a)	relative humi	dity		(b)	pressure	e of w	/ater					
	(c)	volume of liqu	uids		(d)	specific	gravi	ty					
Q47.	Radioactivity is a property of												
	(a)	atomic nuclei			(b)	excited e	electr	on					
	(c)	gamma rays			(d)	ultraviole	et ligł	nt					
Q48.	The a	angle between t	wo vec	tors a =	= i+2j-k	and b=2i+	j+k i	S					
	(a)	30 deg	(b)	45 de	g	((c)	60 deg	(d)	90 deg			
Q49.	Newt	on is unit of for	ce. It is	the unit	in								
	(a)	MKS system			(b)	CGS sys	stem						
	(c)	FPS system			(d)	None of	thes	е					
Q50.	A Far	ad is defined a	S										
	(a)	stat coulomb	/volt		(b)	coulomb	o/volt						
	(c)	coulomb x vo	l t		(d)	stat coul	lomh	x volt					

(c) coulomb x volt (d) stat coulomb x volt

4

EKT Model Question Paper (Electrical & Electronics)-I

Instru	ictions	s for Candida	tes			Time	e Allott	ted: 45 Minutes			
1. 2. 3. 4.	Total One r No m Do no	No. of Quest nark will be d ark will be de ot write on th	tions 5 deduct ducte e Ques	0. Each Ques ed for every d for un-atter stion Paper c	stion is wrong mpted or mak	s of three ma answer. questions. e any mark o	arks. on it.				
Q1.	lf x=a (a)	(cos t + t sin t cos t), y=a(s (b)	sin t – t cos t). sin t	The v (c)	alue of $\frac{dy}{dx}$ is tan t	; (d)	sec ² t			
Q2.	The area of three faces of a cuboid are in the ratio 2:3:4 and its volur 9000 cm^3 . The length of the shortest edge is (a) 15 cm (b) 30 cm (c) 20 cm (d) 60 cm							and its volume is			
Q3.	$\int \frac{dx}{x \log x}$	is equal to	(2)		(0)	20 011	(4)				
	(a)	log x+x+c	(b)	log(logx)+c	(c)	xlogx+c	(d)	$\frac{\log x}{x}$ +C			
Q4.	Q4. Tickets numbered 1 to 20 are mixed up and then a ticket is drawn is the probability that the ticket drawn has a number which is a mul							n at random. What Iltiple of 3 or 5?			
	(a)	8/2	(b)	9/20	(c)	8/15	(d)	2/20			
Q5.	The p	rojection of a	vector	on another ve	ector is	i					
Q6.	(a) (c) In MK	Scalar neither vecto S system, we	or nor s measu	calar ıre	(b) (d)	Vector either scala	Vector either scalar or vector				
07	(a) (c)	mass in kilog time in seco	gram nd	waan two cha	(b) (d)	distance in all of these	distance in meter all of these				
Q7.	them	the separation	JII Delv		iges is		umes,	the force between			
Q8.	(a) (c) When	increases fo increases size a conductor	ur time: kteen ti cuts m	s mes nagnetic flux,	(b) (d) an em	decreases four times decreases sixteen times nf is induced in the conductor. This is					
	knowr	n as			<i>4</i>						
	(a) (c)	Joule's law Coulomb's la	aw		(b) (d)	Faraday's l Ampere's la	aw aw				
Q9.	X-ray	s are used for	the stu	udy of crystal	structu	ire because					
	(a) (b) spacir (c) spacir	X-rays are c the wavelen ng in crystals the wavelen ng in crystals	omplete gth of > gth of	ely absorbed (-ray is of the X-rays is ver	by the same y sma	crystal order of mag II in compari	nitude son wit	in the inter-atomic th the inter-atomic			

(d) the crystals are completely transparent to X-rays

Q10.	A rad	lioactive was its	e isoto origina	pe has al weig	s a half-l ht 40 day	ife of /s ear	10 lier	day	s. If to	day th	nere a	are	125 g ol	f it left,
	(a)	600 g		(b)	1000 g		(c)		1250 g)	(d)		2000 g	
Q11.	Angle projec	es projection ar	ect true e ed	e size	only who	en th	e pl	ane	conta Perpe	ining	the a	ang	le and pl Parallel	ane of
040		in a m	,u	(0)	Aujuoc		(0)		i cipci	Taloal	u (u)		i aranci	
Q12.	l esia (a) (c)	magn magn	etic flu etic po	x dens tential	ity		(b) (d)		electrio electrio	c flux o c pote	densi ntial	ty		
Q13.	Admit (a)	ttance i susce	s recip ptance	rocal c e (b) i	of mpedanc	ce	(c)	rea	actance)	(d)		conducta	nce
Q14.	(a)	RC fil	s an ac ter	tive filt (b) n	er otch filte	r	(c)	But	terwort	h filte:	. (d)	Ł	and pass	s filter
Q15.	For tra (a) (c)	ansmis Balun doubl	sion lir e stub	ne load	l matchin	g ove	r a r (b) (d)	ang	je of fre broadt single	equen band d stub	cies, lirecti	it is iona	s best to ι al coupler	use a
Q16.	. Emitter follower is used for (a) reducing the gain (b) increasing the distortion (c) impedance matching (d) none of these													
Q17.	Binar (a)	y equiv (1110	alent c 1) ₂	of (45) ₁ (b)	₀ is (11110)2	(c)		(10110)1) ₂	(d)	(110101)	2
Q18.	In Co (a)	mputer 1000	memo	ory size (b)	e K indica 1024	ites K	ilo, v (c)	whic	ch is eo 100	qual to	(d)	10000	
Q19.	An as (a) nc	stable m stable	nultivib state	rator h (b) on	as e stable s	state	(c)	thre	e stab	le stat	es (d	l) tv	vo stable	states
Q20.	An ide (a) in (b) ve (c) lo (d) in	eal Op ifinite in ery low ow inpu ofinite i	Amp h iput an input a it impe nput in	as Id outp and ou dance npedar	ut imped tput impe and very nce and z	ance edanc high cero o	e outp utpu	out i ut im	mpeda npedan	ance				
Q21.	An ins (a) (c)	structio data t logica	n used ransfe I instru	l to set r instru ıction	the carry ction	/ flag	in a (b) (d)	con	nputer arithm progra	can be etic in: m con	e clas struct itrol in	ssif tior nsti	ied as a 1 ruction	
Q22.	An FE (a) (c)	ET is a bipola non s	ır semi emicor	conduo nductor	ctor devic device	ce	(b) (d)		unipola both (a	ar serr a) and	nicon (c)	duc	ctor device	Ð
Q23.	For G (a) S	iunn dia Silicon	odes, s (b) (emico Germai	nductor r nium	nateri (c)	al p Ga	refe alliur	rred is m Arse	nide	(d)	all	l of these	
Q24.	In a J	FET dr	ain cui	rent is	maximu	m wh	en V	′ _{GS} i	S					
	(a) z	ero	(b)	nega	tive	(c)	pos	sitiv	е		(d)	ec	qual to Vp)
	-		-	-										

- Q25. The output of Laser is
 - (a) Infrared (b) polarised (c) narrow beam (d) coherent
- Q26. As compared to a closed loop system an open loop system is
 - more stable as well as more accurate (a)
 - (b) less stable as well as less accurate
 - (c) more stable but less accurate
 - (d) less stable but more accurate
- Q27. Transfer function of a system is used to calculate
 - (a) the steady state gain
- (b) the time constant
- (C) the order of the system (d) the output for a given input
- Q28. In a closed loop control system
 - control action depends upon the output and also on the input command (a)
 - output signal is fed back to be compared with the reference signal (b)
 - the accuracy is better than in the open loop system (c)
 - all of the above (d)
- Q29. The difference of the reference input and the actual output signal is called (a) error signal (b) controlling signal (c) actuating signal (d) transfer function
- Q30. If the transfer function of a system is $\frac{1}{T_{S+1}}$, the steady state error to unit step input is (a) T (b) zero (c) infinite (d) none of these
- Q31. In a PID controller, the values of proportional, integral and derivative are dependent on
 - (a) future, past and present errors respectively
 - present, past and future errors respectively (b)
 - (C) past, present and future errors respectively
 - present, future and past errors respectively (d)
- Q32. The inverse Laplace transform of $\frac{2}{s+1}$ is (a) 2(t+1) (b) 2e^{-t} 2(t+1) (c) $2e^{t}$ (a) (b) (d)
- Q33. The signal is extended from 96KHz to 100KHz, so the minimum sampling frequency required is
 - (a) 8KHz (b) 200KHz (c) 4KHz (d) 100KHz

(b)

(b)

- Q34. A differentiation circuit has a
 - very high time constant (b) (a)
 - (d) (c) infinite time constant
- Q35. Ideally Voltage Standing Wave Ratio (VSWR) should be
 - as large as possible (a)
 - (c) as close to unity as possible (d)
- Q36. Following is/are a property/properties of quantization
 - it is an nonlinear process (a)
 - it maps a larger set of input (d) all of these (c) values to a smaller set

zero time constant

infinity

- very low time constant

as small as possible

it is an irreversible process

e^{-2t}

Q37.	Most commonly used filter in SSB generation are (a) mechanical filters (b) RC filters (c) LC filters (d) low pass filters
Q38.	If the antenna diameter in a radar system is increased by a factor of 4, the maximum range will be increased by a factor of (a) 2 (b) 4 (c) 8 (d) 16
Q39.	Following type of multiplexing cannot be used for analog signalling(a)FDM(b)TDM(c)CDM(d)None of these
Q40.	In TDM systems, channel separation is done with the use of (a) AND gates (b) band-pass filters (c) differentiator circuit (d) integrator circuit
Q41.	 Data-link layer of the OSI model specifies (a) data link procedures that provide for the exchange of data via frames that can be sent and received (b) the interface between the X.25 network and packet mode device (c) the virtual circuit interface to packet-switched service (d) all of the above
Q42.	FDDI is a (a) ring network (b) star network (c) mesh network (d) bus based network
Q43.	Which of the following TCP/IP protocol allows an application program on one machine to send a datagram to an application program on another machine? (a) UDP (b) VMTP (c) X.25 (d) SMTP
Q44.	 The main difference between synchronous and asynchronous transmission is that (a) the clocking is derived from the data in synchronous transmission (b) the clocking is mixed with the data in asynchronous transmission (c) the pulse height is different (d) the bandwidth required is different
Q45.	 Transducer is a device which (a) converts one form of power in to the other (b) is similar to transformer (c) converts one form of energy in to other (d) helps in measuring electricity
Q46.	Principle of hysteresis is not used in (a) electrical water geyser (b) electrical motor (c) multi-vibrators (d) Schmitt trigger
Q47.	Which of the following motors would not be suitable for use as servomotors?(a) AC induction motor(b) brushless AC motor(c) stepper motor(d) permanent magnet DC motor
Q48.	The stator of an induction motor is made of (a) carbon (b) wood (c) copper stampings (d) silicon steel laminators
Q49.	An ideal DC generator is one that has voltage regulation (a) low (b) high (c) zero (d) positive
Q50.	Commutator is used in (a) DC generator (b) AC generator (c) invertors (d) convertors

EKT Model Question Paper (Electrical & Electronics)-II

Instructions for Candidates

Time Allotted: 45 Minutes

- 1. Total No. of Questions 50. Each Question is of three marks.
- 2. One mark will be deducted for every wrong answer.
- 3. No mark will be deducted for un-attempted questions.
- 4. Do not write on the Question Paper or make any mark on it.
- Q1. When a conductor cuts magnetic flux, an emf is induced in the conductor. This is known as
 - (a) Joule's law (b) Faraday's law
 - (c) Coulomb's law (d) Ampere's law

Q2. X-rays are used for the study of crystal structure because

- (a) X-rays are completely absorbed by the crystal
- (b) the wavelength of X-ray is of the same order of magnitude in the inter atomic spacing in crystals
- (c) the wavelength of X-rays is very small in comparison with the inter atomic spacing in crystals
- (d) the crystals are completely transparent to X-rays

Q3. Emitter follower is used for

- (a) reducing the gain (b) increasing the distortion
- (c) impedance matching (d) none of these
- Q4. Binary equivalent of $(45)_{10}$ is (a) $(11101)_2$ (b) $(11110)_2$ (c) $(101101)_2$ (d) $(110101)_2$
- Q5. In Computer memory size K indicates Kilo, which is equal to (a) 1000 (b) 1024 (c) 100 (d) 10000

Q6. An astable multivibrator has (a) no stable state (b) one stable state (c) three stable states (d) two stable states

Q7. An ideal Op Amp has

- (a) infinite input and output impedance
- (b) very low input and output impedance
- (c) low input impedance and very high output impedance
- (d) infinite input impedance and zero output impedance

Q8. An instruction used to set the carry flag in a computer can be classified as a

- (a) data transfer instruction
- (b) arithmetic instruction(d) program control instruction
- (c) logical instruction

- Q9. An FET is a
 - (a) bipolar semiconductor device
 - (c) non semiconductor device
- (b) unipolar semiconductor device
- (d) both (a) and (c)
- Q10. For Gunn diodes, semiconductor material preferred is
 - (a) Silicon (b) Germanium (c) Gallium Arsenide (d) all of these

Q11.	In a J (a)	IFET drain cu zero	urrent is (b)	maximum wl negative	hen V _{Gs} (c)	s is positive	(d)	equal to Vp				
Q12.	The c	output of Las	er is									
	(a)	Infrared	(b)	polarised	(c)	narrow bea	m (d)	coherent				
Q13.	As cc (a) (b) (c) (d)	ompared to a more stable less stable more stable less stable	closed e as we as well e but les but mo	loop system a ll as more acc as less accur ss accurate re accurate	an oper curate rate	n loop system	ı is					
Q14.	Trans	sfer function	of a sys	tem is used to	o calcul	ate						
	(a) (c)	the steady	state ga	ain stem	(d)	the time co	nstant for a giv	ren input				
	(0)				(4)		or a giv	on input				
Q15.	In a c (a) (b) (c) (d)	 (a) control action depends upon the output and also on the input command (b) output signal is fed back to be compared with the reference signal (c) the accuracy is better than in the open loop system (d) all of the above 										
Q16.	The difference of the reference input and the actual output signal is called											
Q17.	lf the	transfer fund	ction of	a svstem is—	— .the s	steady state	error to	unit step input is				
	(a)	T (b)	zero	(C)	infinit	e (d) r	none of	these				
Q18.	In a F on (a) (b) (c) (d)	PID controlle future, pas present, pa past, prese present, fu	r,the va t and pr ast and f ent and f ture and	lues of propo esent errors r future errors r future errors r l past errors r	ertional, respecti respecti respecti respecti	integral and vely vely vely vely	derivati	ve are dependent				
Q19.	The i	nverse Lapla	ice trans	sform of $\frac{2}{s+1}$ is		_						
	(a)	2(t+1)	(b)	2e ^{-t}	(c)	2e ^t	(d)	e ^{-2t}				
Q20.	The s requi (a)	signal is exte red is 8KHz	nded fro	om 96KHz to 200KHz	100KHz (c)	z, so the mini 4KHz	mum sa (d)	ampling frequency 100KHz				
Q21.	A diff (a) (c)	erentiation c very high ti infinite time	ircuit ha me con e consta	s a stant nt	(b) (d)	very low tin zero time c	ne cons onstant	tant				
Q22.	ldeal (a)	ly Voltage St as large as	anding possib	Wave Ratio (' le	VSWR) (b)	should be as small as	possib	le				

(c) as close to unity as possible (d) infinity

Q23.	 Following is/are a property/properties of quantization (a) it is an nonlinear process (b) it is an irreversible process (c) it maps a larger set of input (d) all of these values to a smaller set 									
Q24.	Most commonly used filter in SSB generation are (a) mechanical filters (b) RC filters (c) LC filters (d) low pass filters									
Q25.	If the antenna diameter in a radar system is increased by a factor of 4, the maximum range will be increased by a factor of (a) (b) (c) (c) (c) (d) (c) (c) (c)									
Q26.	Following type of multiplexing cannot be used for analog signalling									
	(a) FDM (b) TDM (c) CDM (d) None of these									
Q27.	In TDM systems, channel separation is done with the use of (a) AND gates (b) bandpass filters (c) differentiator circuit (d) integrator circuit									
Q28.	A radioactive isotope has a half-life of 10 days. If today there are 125 g of it left, what was its original weight 40 days earlier									
	(a) 600 g (b) 1000 g (c) 1250 g (d) 2000 g									
Q29.	Angles project true size only when the plane containing the angle and plane of projection are									
• • •	(a) Aligned (b) Adjacent (c) Perpendicular (d) Parallel									
Q30.	I esta is a measure of(a) magnetic flux density(b) electric flux density(c) magnetic potential(d) electric potential									
Q31.	Admittance is reciprocal of (a) susceptance (b) impedance (c) reactance (d) conductance									
Q32.	is an active filter (a) RC filter (b) notch filter (c) Butterworth filter (d) band pass filter									
Q33.	For transmission line load matching over a range of frequencies , it is best to use a(a) Balun(b) broadband directional coupler(c) double stub(d) single stub									
Q34.	 Data-link layer of the OSI model specifies (a) data link procedures that provide for the exchange of data via frames that can be sent and received (b) the interface between the X.25 network and packet mode device (c) the virtual circuit interface to packet-switched service (d) all of the above 									
Q35.	FDDI is a (a) ring network (b) star network (c) mesh network (d) bus based network									
Q36.	Which of the following TCP/IP protocol allows an application program on one machine to send a datagram to an application program on another machine? (a) UDP (b) VMTP (c) X.25 (d) SMTP									
Q37.	 The main difference between synchronous and asynchronous transmission is that (a) the clocking is derived from the data in synchronous transmission (b) the clocking is mixed with the data in asynchronous transmission (c) the pulse height is different (d) the negative different 									

- - (d) the bandwidth required is different

Q38.	Trans (a) co (c) co	ducer is a dev onverts one fo onverts one fo	vice wh rm of p rm of e	ich oower in to energy in to	the oth	other	(b) is s (d) hel	imila ps in	r to tra meas	ansformer suring electricity	
Q39.	Princi (a) ele	ple of hystere ectrical water	sis is n geyser	ot used in (b) electric	al r	notor	(c) multi-v	vibrat	ors (c	d) Schmitt trigger	
Q40.	Which (a) (c)	of the followi AC induction stepper moto	ng mot motor or	tors would (b) (d)	not	be sui brush perma	itable for Iless AC r anent mag	use a notoi gnet	as serv r DC m	vomotors? otor	
Q41.	The s (a) ca	tator of an ind arbon (b) we	uction ood	motor is ma (c) copp	ade ber	e of stamp	ings (d)	silic	con ste	eel laminators	
Q42.	An ide (a)	eal DC genera Iow	itor is c (b)	one that has high	S	(c) v	oltage ree zero	gulat	ion (d)	positive	
Q43.	Comn	nutator is used	d in								
	(a) D	C generator	(b) A	C generato	r	(c) in	vertors		(d)	convertors	
Q44.	lf x=a (a)	(cos t + t sin t) cos t), y=a(s (b)	sin t – t cos sin t	s t).	The va (c)	alue of d tan t	$\frac{y}{x}$ is	(d)	sec ² t	
Q45.	The a 9000 (a)	area of three cm ³ . The leng 15 cm	faces th of th (b)	of a cub le shortest 30 cm	oid edą	are i ge is (c)	n the rat 20 cm	io 2	:3:4 a (d)	nd its volume is 60 cm	
Q46.	$\int \frac{dx}{x \log x}$	is equal to									
	(a)	log x+x+c	(b)	log(logx)+	·С	(c)	xlogx+c		(d)	$\frac{\log x}{x}$ +C	
Q47.	Ticket is the	s numbered 1 probability tha	to 20 to the ti	are mixed cket drawn	up i ha	and th is a nu	nen a tick Imber whi	et is ch is	drawn a mu	at random. What Itiple of 3 or 5?	
	(a)	8/2	(b)	9/20		(c)	8/15		(d)	2/20	
Q48.	The p	rojection of a	vector	on another	ve	ctor is					
	(a)	Scalar				(b)	Vector				
049	(C) In MK	S system we	r nor s measi	calar Ire		(d)	either so	calar	or vec	ctor	
Q-10.	(a)	mass in kiloo	Iram			(b)	distance	e in m	neter		
	(c)	time in secor	nd			(d)	all of the	ese			
Q50.	When them	the separation	on betv	veen two c	har	rges is	s made fo	our tii	mes, t	he force between	
	(a)	increases for	ur time	S		(b)	decreas	es fo	our tim	es	
	(c)	increases six	teen ti	mes		(d)	decreas	decreases sixteen times			

Instru	tructions for Candidates Time Allotted: 45 Minutes									
1.	Total number of Questions 50. Each Question is of three marks.									
2.	One mark will be deducted for every wrong answer.									
3.	No mark will be deducted for un-attempted Question.									
4.	Do not write or make any mark on Question Paper.									
Q1.	If the centre of a circle is (-6,8) and it passes through the origin, then equation to its tangent at the origin is (a) $2y = x$ (b) $4y = 3x$ (c) $3y = 4x$ (d) $3x + 4y = 0$									
Q2.	The liquid is flowing separately through each of two pipes whose diameters are in the ratio of 2:1, if the ratio of the velocities of flow in the two pipes by 1:2, then the ratio of the amounts of the liquid flowing per sec through the pipe will be (a) 2:1 (b) 1:1 (c) 4:1 (d) 1:8									
Q3.	If $f(x) = x + x^2 - 8 $ then the derivative of $f(x)$ at $x=3$ is (a) 6 (b) 7 (c) 8 (d) -8									
Q4.	Given P(A) = 1/4, P(B)=1/3 and P(AUB)= 1/2. Value of P(A/B) is (a) 1/4 (b) 1/3 (c) 1/6 (d) 1/7									
Q5.	The angle between two vectors a = i+2j-k and b=2i+j+k is (a) 30 deg (b) 45 deg (c) 60 deg (d) 90 deg									
Q6.	Newton is unit of force. It is the unit in (a) MKS system (b) CGS system (c) FPS system (d) none of these									
Q7.	A Farad is defined as (a) stat coulomb /volt (b) coulomb/volt (c) coulomb x volt (d) stat coulomb x volt									
Q8.	Permeance of a magnetic circuit corresponds to the following quantity in electrical circuit (a) conductivity (b) resistivity (c) conductance (d) resistance									
Q9.	Hydrometer is an instrument for measuring (a) relative humidity (b) pressure of water (c) volume of liquids (d) specific gravity									
Q10.	Radioactivity is a property of (a) atomic nuclei (b) excited electron (c) gamma rays (d) ultraviolet light									
Q11.	A bar of length ' <i>L</i> ' meters extends by ' <i>I</i> 'mm under a tensile force of ' <i>P</i> '. The strain produced in the bar is (a) I/L (b) 0.1 I/L (c) 0.01 I/L (d) 0.001 I/L									
Q12.	 A rod is enclosed centrally in a tube and the assembly is tightened by rigid washers. If the assembly is subjected to a compressive load, then (a) rod is under compression (b) tube is under compression (c) both rod and tube are under compression (d) tube is under tension and rod is under compression 									

Q13.	3. The shear force and bending moment are zero at the free end of a cantilever beam, if it carries a									
	 (a) point load at the free end (b) point load at the middle of its length (c) uniformly distributed load over the whole length (d) none of the above 									
Q14.	The moment of resistance of a balanced reinforced concrete beam is based on the stresses in (a) steel only (b) concrete only (c) steel and concrete both (d) none of these									
Q15.	In a flange coupling, the flanges are coupled together by means of (a) bolts and nuts (b) studs (c) headless taper bolts (d) none of these									
Q16.	A transmission shaft includes (a) counter shaft (b) line shaft (c) over head shaft (d) all of these									
Q17.	A locking device in which the bottom cylindrical portion is recessed to receive the tip of the locking set screw, is called (a) castle nut (b) jam nut (c) ring nut (d) sawn nut									
Q18.	In a venturiflume, the flow takes place at (a) atmospheric pressure (b) gauge pressure (c) absolute pressure (d) none of these									
Q19.	The total pressure on the top of a closed cylindrical vessel completely filled up with a liquid is (a) directly proportional to $(radius)^2$ (b) inversely proportional to $(radius)^2$									
Q20.	 When the Mach number is more than 6, the flow is called (a) subsonic flow (b) sonic flow (c) super-sonic flow (d) hyper-sonic flow 									
Q21.	The discharge through a convergent mouthpiece is the discharge through an internal mouthpiece of the same diameter and head of water. (a) equal to (b) one-half (c) three fourth (d) double									
Q22.	Which of the following statement is wrong?									
	 (a) The spheroidising process is usually applied to high carbon tool steels which are difficult to machine (b) In spheroidising process, the cementite in the granular form is produced in the structure of steel (c) The annealing process causes complete recrystallisation in steels which have been severely cold worked and a new grain structure is formed (d) none of the above 									
Q23.	 Duplex process of steel making is a combination of (a) basic bessemer and acid open hearth processes (b) acid bessemer and basic open hearth processes (c) acid bessemer and acid open hearth processes (d) basic bessemer and basic open hearth processes 									
Q24.	The property of a material necessary for forgings, in stamping images on coins and in ornamental work, is									

(a) elasticity (b) plasticity (c) ductility (d) malleability

- Q25. A ladder is resting on a smooth ground and leaning against a rough vertical wall. The force of friction will act
 - towards the wall at its upper end (b) (a) (d)
 - upward at its upper end
 - downward at its upper end (c)
- Q26. The slope on the road surface generally provided on the curves is known as (a) angle of friction (b) angle of repose (c) angle of banking (d) none of these
- Q27. For any system of coplanar forces, the condition of equilibrium is that the
 - algebraic sum of the horizontal components of all the forces should be zero (a)
 - algebraic sum of the vertical components of all the forces should be zero (b)
 - (c) algebraic sum of moments of all the forces about any point should be zero
 - all of the above (d)
- Q28. An open cycle gas turbine works on
 - Carnot cycle (b) Otto cycle (c) Joule's cycle (d) Stirling cycle (a)
- Q29. When the gas is cooled at constant pressure,
 - its temperature increases but volume decreases (a)
 - its volume increases but temperature decreases (b)
 - both temperature and volume increases (c)
 - (d) both temperature and volume decreases
- Q30. As per Charles' law, the volume of a given mass of a perfect gas varies _ as its absolute temperature, when the absolute pressure remains constant.
 - directly indirectly (c) (d) none of the above (a) (b) no relation
- Q31. In an extensive property of a thermodynamic system
 - extensive heat is transferred (b) extensive work is done (a)
 - extensive energy is utilised (c) (d) none of these
- Q32. Rotary compressors are used for delivering
 - small quantities of air at high pressures (a)
 - large quantities of air at high pressures (b)
 - small quantities of air at low pressures (c)
 - (d) large quantities of air at low pressures
- Q33. A rotary compressor is driven by an (a) electric motor (b) engine
 - (c) either (a) or (b) (d) none of these
- Q34. In a centrifugal compressor, an increase in speed at a given pressure ratio causes (a)
 - increase in flow decrease in flow (b)
 - increase in efficiency (d) increase in flow and decrease in efficiency
- Q35. A large clearance Volume in a reciprocating compressor results in
 - reduced volume flow rate (b) increased volume flow rate (a) (d) lower delivery pressure
 - (c) lower suction pressure
- Q36. The effect of having excess camber is
 - excessive steering alignment torque hard steering (a) (b)
 - too much traction (c)

(c)

- (d) uneven tyre wear
- Q37. If the air-fuel mixture ignites before the spark takes place at spark plug, the condition is called
 - detonation pre-ignition (d) rumble (a) (b) ignition (C)

away from the wall at its upper end

Q38.	The d and cl	diagram which shows the correct crank positions corresponding to the opening closing of the valves, is known as									
	(a) (c)	indicator dia valve timing	gram diagra	ım			(b) (d)	axial t none o	force c of thes	liagram e	
Q39.	In valu (a) (c)	ue engineering manufacturin total cost of t	g, the t ig cost he pro	erm va of the duct	llue refe produc	ers to t	(b) (d)	selling utility (price of the	of the proc product	duct
Q40.	Produ (a) (b) (c) (d)	ction cost refe factory overh factory and a factory, admi factory, admi	ers to p leads idminis inistrat inistrat	orime c stration ion and ion, sa	ost plus overhe d sales les ove	s eads overhe rheads	ads and pr	rofit			
Q41.	A syst (a)	ematic job im motion study	prover (b)	nent se time s	equence study	e will co (c)	onsist o job en	of irichme	nt (d)	all of thes	se
Q42.	Cast iron during machining produces(a) continuous chips(b) discontinuous(c) continuous chips with built-up-edge(d) none of these										
Q43.	A sing (a) (c)	le point threa zero rake an negative rake	ng tool e	should	ideally	have (b) (d)	positiv point a	re rake angle	angle		
Q44.	The c (a)	utting tool in a spindle	milling (b)	g mach arbor	ine is n	nounte (c)	d on colum	in	(d)	knee	
Q45.	One of typing	uick way to	view tł	ne enti	re drav	ving ar	ea is t	o use t	he Zo	om comm	and by
	(a) (c)	type Z enter type SHOWA	A ente ALL en	r ter			(b) (d)	type Z type A	enter	E enter ter	
Q46.	When to	setting up a	mecha	inical d	Irawing	in Auto	oCAD 1	the drat	fter sh	ould set th	e units
	(a)	fractional	(b)	decim	nal	(c)	archite	ectural	(d)	metric	
Q47.	In a c avoid	lass B push-p	oull an	nplifier,	the tra	Insistor	s are t	biased	slightly	v above cu	it-off to
	(a) (c)	crossover dis negative feed	stortior dback	١			(b) (d)	unusu a low i	ally hiq input ir	gh efficiend mpedance	су
Q48.	The d (a) (b) (c) (d)	epletion-mode can operate can operate cannot opera can operate	e MOS with or with or ate in th with po	FET nly posi nly neg ne ohm ositive a	itive ga ative ga nic regio as well	te volta ate volt on as neg	ages ages ative g	ate volt	ages		
Q49.	Ailero (a)	ns are used to Yaw of aircra	o contre aft	ol (b)	pitch		(c)	roll	(d)	None of t	hese
Q50.	Stallin (a) (b)	g of the aerof When the an When the an	oil occ gle of gle of	urs attack i attack i	is beyo is less t	nd criti than cri	cal ang itical ar	le of at	tack. attack.		

- (c) (d) Both A and B
 - None of the above

Instru	ructions for Candidates Time Allotted: 45 Minu	tes
1.	Total number of Questions 50. Each Question is of three marks.	
2.	One mark will be deducted for every wrong answer.	
3.	No mark will be deducted for un-attempted Question.	
4.	Do not write or make any mark on Question Paper.	
Q1.	One quick way to view the entire drawing area is to use the Zoom comman typing	nd by
	 (a) type Z enter A enter (b) type Z enter E enter (c) type SHOWALL enter (d) type ALL enter 	
Q2.	When setting up a mechanical drawing in AutoCAD the drafter should set the to	units
	(a) fractional (b) decimal (c) architectural (d) metric	
Q3.	In a class B push-pull amplifier, the transistors are biased slightly above cut- avoid	off to
	 (a) crossover distortion (b) unusually high efficiency (c) negative feedback (d) a low input impedance 	
Q4.	 The depletion-mode MOSFET (a) can operate with only positive gate voltages (b) can operate with only negative gate voltages (c) cannot operate in the ohmic region (d) can operate with positive as well as negative gate voltages 	
Q5.	Ailerons are used to control (a) Yaw of aircraft (b) pitch (c) roll (d) None of these	
Q6.	 Stalling of the aerofoil occurs (a) When the angle of attack is beyond critical angle of attack. (b) When the angle of attack is less than critical angle of attack. (c) Both A and B (d) None of the above 	
Q7.	As per Charles' law, the volume of a given mass of a perfect gas v as its absolute temperature, when the absolute pressure rer constant.	/aries nains
	(a) directly (b) indirectly (c) no relation (d) none of the a	lbove
Q8.	In an extensive property of a thermodynamic system (a) extensive heat is transferred (b) extensive work is done (c) extensive energy is utilised (d) none of these	
Q9.	 Rotary compressors are used for delivering (a) small quantities of air at high pressures (b) large quantities of air at high pressures (c) small quantities of air at low pressures (d) large quantities of air at low pressures 	
Q10.	. A rotary compressor is driven by an	

(a) electric motor (b) engine (c) either (a) or (b) (d) none of these

Q11.	In a centrifugal compressor, an increase in speed at a given pressure ratio causes(a) increase in flow(b) decrease in flow(c) increase in efficiency(d) increase in flow and decrease in efficiency						
Q12.	A large clearance Volume in a reciprocating compressor results in (a) reduced volume flow rate (b) increased volume flow rate (c) lower suction pressure (d) lower delivery pressure						
Q13.	Newton is unit of force. It is the unit in (a) MKS system (b) CGS system (c) FPS system (d) none of these						
Q14.	A Farad is defined as (a) stat coulomb /volt (b) coulomb/volt (c) coulomb x volt (d) stat coulomb x volt						
Q15.	Permeance of a magnetic circuit corresponds to the following quantity in electrical circuit (a) conductivity (b) resistivity (c) conductance (d) resistance						
Q16.	Hydrometer is an instrument for measuring (a) relative humidity (b) pressure of water (c) volume of liquids (d) specific gravity						
Q17.	Radioactivity is a property of (a) atomic nuclei (b) excited electron (c) gamma rays (d) ultraviolet light						
Q18.	A bar of length ' <i>L</i> ' meters extends by ' <i>I</i> 'mm under a tensile force of ' <i>P</i> '. The strain produced in the bar is (a) I/L (b) 0.1 I/L (c) 0.01 I/L (d) 0.001 I/L						
Q19.	 A rod is enclosed centrally in a tube and the assembly is tightened by rigid washers. If the assembly is subjected to a compressive load, then (a) rod is under compression (b) tube is under compression (c) both rod and tube are under compression (d) tube is under tension and rod 						
Q20.	The shear force and bending moment are zero at the free end of a cantilever beam, if it carries a (a) point load at the free end (b) point load at the middle of its length (c) uniformly distributed load over the whole length (d) none of the above						
Q21.	The moment of resistance of a balanced reinforced concrete beam is based on the stresses in (a) steel only (b) concrete only (c) steel and concrete both (d) none of these						
Q22.	In a flange coupling, the flanges are coupled together by means of (a) bolts and nuts (b) studs (c) headless taper bolts (d) none of these						
Q23.	A transmission shaft includes (a) counter shaft (b) line shaft (c) over head shaft (d) all of these						
Q24.	A locking device in which the bottom cylindrical portion is recessed to receive the tip of the locking set screw, is called (a) castle nut (b) jam nut (c) ring nut (d) sawn nut						
Q25.	In a venturiflume, the flow takes place at (a) atmospheric pressure (b) gauge pressure (c) absolute pressure (d) none of these						

- Q26. The total pressure on the top of a closed cylindrical vessel completely filled up with a liquid is
 - directly proportional to (radius)² (b) inversely proportional to $(radius)^2$
 - (C) directly proportional to (radius)⁴
 - (d) inversely proportional to (radius)⁴
- Q27. When the Mach number is more than 6, the flow is called
 - subsonic flow (b) sonic flow
 - (d) super-sonic flow hyper-sonic flow
- Q28. The discharge through a convergent mouthpiece is _ ____ the discharge through an internal mouthpiece of the same diameter and head of water.
 - equal to one-half (c) three fourth (d) (a) (b) double
- Q29. Which of the following statement is wrong?

The spheroidising process is usually applied to high carbon tool steels which (a) are difficult to machine

(b) In spheroidising process, the cementite in the granular form is produced in the structure of steel

The annealing process causes complete recrystallisation in steels which (c) have been severely cold worked and a new grain structure is formed

none of the above (d)

(a)

(a)

(c)

- Q30. Duplex process of steel making is a combination of
 - basic bessemer and acid open hearth processes (a)
 - (b) acid bessemer and basic open hearth processes
 - (c) acid bessemer and acid open hearth processes
 - basic bessemer and basic open hearth processes (d)
- Q31. The property of a material necessary for forgings, in stamping images on coins and in ornamental work, is
 - (C) (d) (a) elasticity (b) plasticity ductility malleability
- Q32. A ladder is resting on a smooth ground and leaning against a rough vertical wall. The force of friction will act
 - towards the wall at its upper end (b) away from the wall at its upper end (a)
 - downward at its upper end (c) (d)
- Q33. The slope on the road surface generally provided on the curves is known as (a) angle of friction (b) angle of repose (c) angle of banking (d) none of these
- Q34. For any system of coplanar forces, the condition of equilibrium is that the
 - algebraic sum of the horizontal components of all the forces should be zero (a)
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 - algebraic sum of moments of all the forces about any point should be zero (c)
 - all of the above (d)
- Q35. An open cycle gas turbine works on
 - (a) Carnot cycle (b) Otto cycle (c) Joule's cycle (d) Stirling cycle
- Q36. When the gas is cooled at constant pressure,
 - its temperature increases but volume decreases (a)
 - (b) its volume increases but temperature decreases
 - (c) both temperature and volume increases
 - both temperature and volume decreases (d)

- upward at its upper end

Q37.	The e (a) (c)	e effect of having excess camber is excessive steering alignment torque (b) hard steering too much traction (d) uneven tyre wear								
Q38.	lf the condi (a)	air-fuel mix tion is called detonation	ture ig (b)	nites before ignition	the s (c)	park ta pre-ię	akes pl gnition	ace at (d)	spark plug rumble	, the
Q39.	The diagram which shows the correct crank positions corresponding to the opening and closing of the valves, is known as(a) indicator diagram(b) axial force diagram(c) valve timing diagram(d) none of these							ening		
Q40.	In val (a) (c)	value engineering, the term value refers to manufacturing cost of the product (b) selling prio total cost of the product (d) utility of th					g price of the	of the product	ct	
Q41.	 Production cost refers to prime cost plus (a) factory overheads (b) factory and administration overheads (c) factory, administration and sales overheads (d) factory, administration, sales overheads and profit 									
Q42.	. A systematic job improvement sequence will consist of (a) motion study (b) time study (c) job enrichment (d) all of these									
Q43.	Cast iron during machining produces (a) continuous chips (b) discontinuous chips (c) continuous chips with built-up-edge (d) none of these									
Q44.	A single point thread cutting tool should ideally have(a) zero rake angle(b) positive rake angle(c) negative rake angle(d) point angle									
Q45.	The c (a)	utting tool in a spindle	a milling (b)	g machine is arbor	mounte (c)	ed on colur	nn	(d)	knee	
Q46.	Q46. If the centre of a circle is (-6,8) and it passes through the origin, then equation to its tangent at the origin is (a) $2y = x$ (b) $4y = 3x$ (c) $3y = 4x$ (d) $2x + 4y = 0$								to its	
Q47.	(a) $2y = x$ (b) $4y = 3x$ (c) $3y = 4x$ (d) $3x + 4y = 0$. The liquid is flowing separately through each of two pipes whose diameters are in the ratio of 2:1, if the ratio of the velocities of flow in the two pipes by 1:2, then the ratio of the amounts of the liquid flowing per sec through the pipe will be (a) 2:1 (b) 1:1 (c) 4:1 (d) 1:8									
Q48.	If $f($	$x) = x + x^2 - x + x^2 - $	- 8 the	en the derivat	tive of	f(x) at	<i>x</i> =3 is			
Q49	(a) Giver	6 P(A) = 1/4 F	(b) P(B)=1/	7 3 and P(ALIR	(c) (1/2) = 1/2	8 Value	of P(A/	(d) B) is	-8	
<u> </u>	(a)	1/4	(b)	1/3	(C)	1/6	5.1 (70	(d)	1/7	
Q50.	The a (a)	ingle between 30 deg	two ve (b)	ectors a = i+2 45 deg	2j-k and (c)	d b=2i+ 60 de	·j+k is eg	(d)	90 deg	

ANSWER KEYS: EKT Model Question Paper (Mechanical)-I

Question Number	Answer	Question Number	Answer
1	В	26	С
2	А	27	D
3	В	28	С
4	А	29	D
5	С	30	А
6	С	31	D
7	В	32	D
8	С	33	С
9	D	34	D
10	А	35	А
11	D	36	D
12	С	37	С
13	С	38	С
14	С	39	D
15	А	40	А
16	D	41	D
17	С	42	В
18	А	43	А
19	С	44	В
20	D	45	А
21	D	46	В
22	D	47	А
23	В	48	D
24	В	49	С
25	D	50	A

Question Number	Answer	Question Number	Answer
1	А	26	С
2	В	27	D
3	А	28	D
4	D	29	D
5	С	30	В
6	А	31	В
7	А	32	D
8	D	33	С
9	D	34	D
10	С	35	С
11	D	36	D
12	А	37	D
13	С	38	С
14	В	39	С
15	С	40	D
16	D	41	А
17	А	42	D
18	D	43	В
19	С	44	А
20	С	45	В
21	С	46	В
22	А	47	А
23	D	48	В
24	С	49	А
25	А	50	С

ANSWER KEY: EKT Model Question Paper (Mechanical)-II
Question Number	Answer	Question Number	Answer
1	В	26	D
2	А	27	С
3	В	28	D
4	A	29	В
5	С	30	С
6	A	31	А
7	D	32	В
8	С	33	D
9	D	34	D
10	A	35	В
11	A	36	А
12	D	37	С
13	С	38	А
14	В	39	С
15	С	40	А
16	С	41	В
17	A	42	А
18	A	43	А
19	А	44	С
20	В	45	С
21	В	46	D
22	С	47	В
23	В	48	В
24	В	49	В
25	С	50	С

ANSWER KEYS: EKT Model Question Paper (Computer Science)-I

Question Number	Answer	Question Number	Answer
1	A	26	С
2	D	27	А
3	С	28	В
4	В	29	D
5	С	30	D
6	В	31	В
7	А	32	А
8	С	33	А
9	А	34	С
10	С	35	С
11	А	36	D
12	С	37	В
13	А	38	В
14	А	39	В
15	А	40	С
16	В	41	В
17	В	42	А
18	С	43	В
19	В	44	А
20	В	45	С
21	С	46	D
22	D	47	А
23	С	48	С
24	D	49	A
25	В	50	D

ANSWER KEYS: EKT Model Question Paper (Computer Science)-II

Question Number	Answer	Question Number	Answer
1	С	26	С
2	A	27	D
3	В	28	D
4	В	29	А
5	A	30	В
6	D	31	В
7	D	32	В
8	В	33	В
9	В	34	В
10	D	35	С
11	D	36	D
12	A	37	А
13	В	38	А
14	С	39	В
15	С	40	А
16	С	41	А
17	С	42	А
18	В	43	А
19	A	44	В
20	D	45	С
21	С	46	С
22	В	47	С
23	С	48	D
24	A	49	С
25	D	50	А

ANSWER KEYS: EKT Model Question Paper (Electrical & Electronics)-I

Question Number	Answer	Question Number	Answer
1	В	26	В
2	В	27	А
3	С	28	D
4	С	29	D
5	В	30	А
6	А	31	В
7	D	32	С
8	С	33	С
9	В	34	А
10	С	35	А
11	А	36	А
12	D	37	В
13	С	38	С
14	D	39	С
15	D	40	С
16	A	41	D
17	В	42	С
18	В	43	А
19	В	44	С
20	В	45	А
21	В	46	В
22	С	47	В
23	D	48	A
24	А	49	D
25	А	50	D

ANSWER KEYS: EKT Model Question Paper (Electrical & Electronics)-II