

for



(ALLEN Scholarship Cum Admission Test)

CLASSROOM CONTACT PROGRAMME

PRE-NURTURE & CAREER FOUNDATION : CLASS-VII

(FOR VI to VII MOVING STUDENTS)



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INSTRUCTIONS

Things NOT ALLOWED in EXAM HALL : Blank Paper, clipboard, log table, slide rule, calculator, camera, mobile and any electronic or electrical gadget. If you are carrying any of these then keep them at a place specified by invigilator at your own risk

- 1. This booklet is your Question Paper. **DO NOT** break seal of Booklet until the invigilator instructs to do so.
- 2. Fill your Form No. in the space provided on the top of this page.
- 3. The Answer Sheet is provided to you separately which is a machine readable Optical Response Sheet (ORS). You have to mark your answers in the ORS by darkening bubble, as per your answer choice, by using black & blue ball point pen.
- 4. Total Questions to be Attempted 80. Part-I : 20 Questions & Part-II : 60 Questions.
- 5. After breaking the Question Paper seal, check the following:

a. There are 13 pages in the booklet containing question no. 1 to 80 under 2 Parts i.e. Part-I & Part-II.

b. Part-I contains total 20 questions of IQ (Mental Ability).

c. Part-II contains total 60 questions under 4 sections which are - Section (A) : Physics, Section (B) : Chemistry, Section(C) : Biology & Section (D): Mathematics.

6. Marking Scheme:

a. If darkened bubble is RIGHT answer : 4 Marks.

b. If no bubble is darkened in any question: No Mark.

- c. Only for part II : If darkened bubble is WRONG answer: -1 Mark (Minus One Mark).
- 7. Think wisely before darkening bubble as there is negative marking for wrong answer.
- 8. If you are found involved in cheating or disturbing others then your ORS will be cancelled.
- 9. Do not put any stain on ORS and hand it over back properly to the invigilator.



PART-I

IQ (MENTAL ABILITY)

This section contains **20 Multiple Choice Questions.** Each question has four choices (1), (2), (3) and (4) out of which ONLY ONE is correct.

1.	If TABLE is coded as VCDNG then CLASS is coded as:											
	(1) DMBSS	(2) ENCUU	(3) ENBUU	(4) ELBUU								
		1	357									
2.	Which fraction comes	next in the sequence $\frac{1}{2}$	$\frac{1}{4}, \frac{1}{8}, \frac{1}{16}, \frac{1}{7}$									
	(1) $\frac{9}{2}$	(2) $\frac{10}{10}$	$(2) \frac{11}{1}$	$(1) \frac{12}{12}$								
	(1) 32	(2) 17	(3) 34	(4) 35								
3.	Find the missing num	ber in place of question	mark?									
	(1) 1											
	(2) -1		0 -1 -2									
	(3) - 2		1 0 -1									
	(4) (4)		2 ? 0									
1	(T) T A person if facing North	h West He turns 15° in th	e clockwise direction and	then 135° in the anticlockwise								
4.	direction Which direct	$\frac{1}{2}$ west. He turns 43° in the turns 43° in the turns 10°	e clockwise direction and	then 155 in the anticiockwise								
	(1) South West	(2) North West	(3) North East	(A) South East								
5	(1) South-west	(2) North-west	(5) Norm-Last	(4) South-East								
5.	(1) Cousin	(2) Son	(3) Uncle	(4) Son in law								
6	(1) Cousin	(2) Soli	(3) Unere	(4) Soli-III-law								
0.	letter has been numbered. Choose the option which gives the correct order of the letters as indicated											
	by the numbers to form the word											
		In the word.										
	1 2 3 4 5 6											
	(1) 1 3 4 5 6 2	(2) 2 3 6 4 5 1	(3) 3 5 2 6 4 1	(4) 6 3 2 4 5 1								
7	In a certain code MEI	DICO is coded as DEMC	CL write code for PICN	(+) 0, 3, 2, 4, 5, 1 JIC								
	(1) ICICPN	(2) CIPCIN	(3) PNICIC	(4) CCIINP								
8.	Standing on a platform	Amit told Sunita that Al	igarh was more than ten l	cilometres but less than fifteen								
0.	kilometres from there. Sunita knew that it was more than twelve but less than fourteen kilometres from											
	there. If both of them were correct, which of the following could be the distance of Aligerth from the											
	Platform ?	were confect, which of th	te following could be the	distance of Aligani from the								
	(1) 11 km	(2) 12 km	(3) 13 km	(4) 14 km								
9	A honeyhee colony the	at contains $50\ 000\ bees$	in late fall may have or	10.000 here at the end of								
	winter. What percent	of the bees live through	the winter season ?	m _j 10,000 bees at the end of								
	(1) 80%	(2) 20%	(3) 25%	(4) 50%								
	(-) 00/0	(-) =0 /0		(.) 00/0								



10. Find out which number stands for AB in the following operation

(1) 12		Δ	R
(2) 22		7	ם ר
(3) 24	+	/	

- (4) 132
- 11. Find the mirror image of REASONING from the options given below
 - REAZONING (4) GNINOSAER (6) REASONING (2) GNINOSVER (1)

9 6

12. In the question, the second dice is obtained by rotating the first dice vertically downwards, by an angle of 180°. Observe the dice and answer the question. The faces of this dice show letter A, B, C, D, E and F.

Letter on the face opposite to the face showing the letter A is



- 14. How many squares are there in a 6 × 4 square grid ?

 (1) 45
 (2) 50
 (3) 55
 (4) 60
- **15.** There are three forms X, Y and Z of a sheet of paper. Figures X and Y respectively show the two consecutive folds of the sheet and the figure Z shows punch on the folded sheet. Choose one figure from the four option (1), (2), (3) and (4), that is similar to the unfolded form of the sheet Z.





Direction (Q.16 & Q.17) : Six persons are sitting in a circle. A is facing B. B is to the right of E and left of C. C is to the left of D. F is to the right of A. Now D exchanges his seat with F and E with B.

- **16.** Who will be sitting to the left of D ?
- (1) B
 (2) D
 (3) E
 (4) A
 17. Who will be sitting to the left of C ?
 (1) E
 (2) F
 (3) A
 (4) B
 18. Here are some words translated from an artificial language.
 granamelke means big tree
 - *pinimelke* means little tree
 - melkehoon means tree house
 - Which word could mean "big house" ?
 - (1) Granahoon (2) Pinishur (3) Pinihoon (4) Melkegrana
- **19.** Of the four choices, you must identify the one that would best complete the second set so that it expresses the same relationship as the first set.



- **20.** In a family there are husband wife, two sons and two daughters. All the ladies were invited to a dinner. Both sons went out to play. Husband did not return from office. Who was at home?
 - (1) Only wife was at home
 - (3) Only sons were at home
- (2) All ladies were at home
- (4) No body was at home



PART-II

SECTION-A : PHYSICS

This section contains **12 Multiple Choice Questions.** Each question has four choices (1), (2), (3) and (4) out of which ONLY ONE is correct.

21. Krish conducted an experiment with shadow sticks. The pictures below were drawn from his observations of the Sun's movement across the sky. Which picture shows the time of the day when the Sun was highest in the sky?



22. A student rubbed a piece of silk over a balloon filled with air. The student put the balloon and the piece of silk down on a table.



Which will most likely happen when the student moves the balloon near the silk?

- (1) The balloon will float towards the ceiling. (2) The silk will fall to the floor.
- (3) The balloon will be attracted to the silk. (4) The silk will be repelled by the balloon.
- 23. One side of a square chessboard is 24 inches long. The length of its other side is equal to (1) 1 foot
 (2) 2 feet
 (3) 12 feet
 (4) 24 feet
- 24. Which of the following pictures shows the appearance of the Moon when a solar eclipse occurs?



25. Ten coins were around are above the other. Their total height was 4 cm and 6 mm. The thickness of each coin is

(3) 4.6 mm

(4) 46 mm

- (1) 4.0 mm
- Statement-A : Rotation of earth on its axis is a periodic motion but it is not a rotatory motion.
 - **Statement-B**: Motion of an engine piston is a translatory motion.

(2) 4.5 mm

- (1) Statement A is correct but statement B is incorrect
- (2) Statement A is incorrect but statement B is correct
- (3) Both the statements are correct
- (4) Both the statements are incorrect

26.



27. Which part of the bulb is an insulator ?



28. Nidhi has two bulbs connected across two cells in a simple circuit as shown. How can she make the bulbs glow dimmer?



- (1) Replace one cell with a piece of chalk.
- (2) Replace one cell with a piece of wire.
- (3) Replace one bulb with a piece of wire.

(4) Replace one bulb with another cell.

29. The figure shows a ring magnet X, 'floating' above another ring magnet Y. This is because



- (1) Magnet X is lighter than magnet Y.
- (2) Magnet Y is more powerful than magnet X.
- (3) The like poles of both magnets are facing each other and they repel each other.
- (4) The unlike poles of both magnets are facing each other and they attract each other.
- 30. Which object is most likely to be an opaque object ?





31. Students built the electromagnet below.



Which object would be attracted to the electromagnet?



- **32.** Rina explored the strength of a magnet by testing the number of paper clips the magnet could hold by following these steps:
 - Step 1 She opened a large paper clip to make a hook.
 - Step 2 She placed the hook on the magnet at the edge of the magnet's north pole.
 - Step 3 She added one paper clip at a time until the hook fell off the magnet.
 - Step 4 She recorded the highest number of paper clips the hook could hold.

Steps 5 through 10 - She repeated this test every 2 cm until she reached the magnet's south pole and recorded the data each time (see Table 1).



Table 1: Rina's data

Distance from N pole of magnet	Number of paper clips held
0 cm	20
2 cm	9
4 cm	0
6 cm	0
8 cm	0
10 cm	9
12 cm	20

Based on the data collected, what can Rina conclude about the strength of magnetic fields?

- (1) Magnet is stronger at its north pole and weaker at its south pole.
- (2) Magnet is stronger at its south pole and weaker at its north pole.
- (3) Magnet is stronger near its poles and gets weaker as you move away from its poles.
- (4) Magnet is weaker near its poles and gets stronger as you move away from its poles.



SECTION-B : CHEMISTRY

This section contains **11 Multiple Choice Questions.** Each question has four choices (1), (2), (3) and (4) out of which ONLY ONE is correct.

33.	Metals can be bea	ten into thin sheets.	This property is c	alled :								
	(1) Ductility	(2) Elasticity	(3) Vola	tility	(4) Malleability							
34.	Muslin cloth is us	ed for :										
	(1) Filtration	(2) Sedimenta	tion (3) Deca	intation	(4) Condensation							
35.	Which of the follo	owing combination i	s INCORRECT ?)								
	(1) Boiling, Evapo	oration, Rain (Physi	cal change)									
	(2) Snow fall, Burning of paper, Rusting (Chemical change)											
	(3) Formation of curd, growth of plant (Chemical change)											
	(4) Breaking of gl	ass, melting of wax	, Ice formation (P	hysical chang	e)							
36.	The most essentia	l property of a subs	tance to be used a	s a cooking v	vessel is							
	(1) Conductance	of heat	(2) Duct	ility								
	(3) Conductance of	of electricity	(4) All (of the above								
			m l									
37.		"(Contraction of the second se										
		$\langle \rangle $ – ($\langle \rangle $	→ (~ ²) ⁻									
		\bigcirc										
	Lighting an electric hulb is change											
	(1) reversible	(2) irreversibl	e (3) chen	nical	(4) biological							
38.	Karan cuts a piece	of wire and then be	nds to form pattern	Identify the	change undergone by the wire							
201	(1) Irreversible photo	vsical change	(2) Reve	ersible physic	al change							
	(1) Intervensione pr (3) Chemical char	ige	(2) Itere (4) Initia	ally chemical	change later physical change							
39.	The microscopic v	iew of three differen	at substances are shown in the given diagram. Where T. T. and									
	T. are temperatures	and F., F. and F. at	e the forces of attra	iction of the p	articles of the respective states.							
	Choose the correc	t order among the f	ollowing.	r								
		Т	т	Т								
				13								
		-										
		-										
		F_	F ₂	F ₃								
	(1) $T_1 < T_2 < T_3 a$	nd $F_1 < F_2 < F_3$	(2) T ₁ >	$T_2 > T_3$ and I	$F_1 > F_2 > F_3$							
	(3) $T_1 < T_2 < T_3$ a	nd $F_1 > F_2 > F_3$	(4) $T_1 >$	(4) $T_1 > T_2 > T_3$ and $F_1 < F_2 < F_3$								
40.	Rohan observed f	ormation of the gre	en layer on a cop	per statue in	his home. This formation is							

- due to
- (1) Chemical change
- (3) Periodic change

- (2) Physical change
- (4) Both 2 and 3



41. Which of the following mixture can be separated by given apparatus ?



(1) Part 1

48. Four parts of a sunflower plant are identified by numbers in the picture below. Which numbered part of the sunflower plant is mainly responsible for reproduction?



49. The diagram below shows organs that enable humans to eat food and eliminate waste. Which system is represented in the diagram?



- (1) Petal (2) Sepal (3) Carpel (4) Ovary
- **51.** Read the comprehension and fill in the gaps (A) and (B).

From birth until about the age of eighteen, bones are forming and growing. As children grow, it is important that their diet includes a lot of(A).... It keeps your heart beating steadily. It keeps your blood, nerves and(B).... working correctly. It helps your blood to clot.

- (1) A Magnesium, B Hair (2) A Iron, B Nails
- (3) A Iodine, B Kidney (4) A Calcium, B Muscles



- 52. Which food items do you suggest to include in the diet of a person suffering from bleeding of gums?
 - (1) Amla (2) Guava (3) Both 1 and 2 (4) Milk
- 53. Study the food web below.



Which of the following groups would complete the above food web correctly ?

	Α	В	С
(1)	Maize plant	Banana tree	Frog
(2)	Lily plant	Fern	Lizard
(3)	Venus fly	Jack fruit	Snake
(4)	Pitcher plant	Starfruit tree	Toad

The given pictures are the modified parts of____ in plants. Observe the given pictures and choose 54. the correct option.



Look at the picture of a duck's webbed feet. 55.



How do webbed feet help ducks survive?

- (1) They allow ducks to run faster.
- (3) They help ducks swim.

- (2) They help ducks shred their food.
- (4) They allow ducks to walk better.



SECTION-D : MATHEMATICS

This section contains **25 Multiple Choice Questions.** Each question has four choices (1), (2), (3) and (4) out of which ONLY ONE is correct.

56.	$4\frac{7}{8} = ?$									
	(1) 4.78	(2) 4.87	(3) 4.875	(4) None of these						
57.	With the angles given	below, in which case th	e construction of triang	le is possible?						
	(1) 30° , 60° , 70°		(2) 50°, 70°, 60°							
	(3) 40°, 80°, 65°		(4) 72°, 28°, 90°							
58.	Which of the symbols	are never repeated?								
	(1) V, X and C		(2) V, X and D							
	(3) V, L and D		(4) L, K and C							
59.	(-7) + (-9) + 12 + (-1)	16) = ?								
	(1) -20	(2) 20	(3) -12	(4) 12						
60.	What do you mean by	y a regular quadrilateral?								
	(1) A rectangle		(2) A rhombus							
	(3) A square		(4) A trapezium							
61.	Ankur sold 13.375 kg	of cheese on a day. On	n the next day he sold 725 gm of cheese. On the third							
	day he sold 12.125 kg	g of cheese. How much	of cheese in all did the	Ankur sell?						
	(1) 26.225 kg		(2) 750.5 kg							
	(3) 14.225		(4) none of these							
62.	AB and CD are two c	hords of a circle, if only	AB passes through the	centre of the circle, then						
	(1) $AB = CD$		(2) $AB > CD$							
	(3) AB < CD		(4) None of these							
63.	Which of the followin	ig is incorrect.								
	(1) $4,02,81,008 \to \text{Fo}$	ur crore two lakh eighty	one thousand eight.							
	(2) $83,07,80,120 \rightarrow E$	lighty three crore seven	lakh eighty thousand or	ne hundred twenty.						
	(3) face value of 9 in	9,74,214 is 9 lakh.								
	(4) 648340021 is writ	ten with commas as (Int	ernational system) 648,	340,021.						
64.	The difference of the s	smallest five digit numbe	er and the greatest five c	ligit number formed by using						
	2, 1, 5, 7, 0 only (Dig	gits should not be repeat	ed) 1s							
	(1) /3953		(2) 65053							
(=	(3) 04955		(4) 05955							
05 .	A curve which begins	and ends at the same p	oint is called a							
	(1) closed curve		(2) open curve							
66	(5) normal curve	decimal fraction unto ?	(4) definite curve							
00.	(1) 0.101	ucennar fraction upto 5	(2) 0 111							
	(1) 0.101 (3) 0.001		(2) 0.111 (4) 0.011							
	(3) 0.001		(+) 0.011							



67. What is the measure of $\angle ABD$?



	(1) 20°	(2) 70°	(3) 140°	(4) 160°								
68.	Which of the following	ng Roman numeral	l is not meaningful?									
	(1) CI	(2) C II	(3) IC	(4) XC								
69.	Arpit has some marbles in his bag. He puts half of the marbles in a jar and one-sixth in his pocket											
	If total marbles are 10	more than twice of	of the remaining marbles ir	the bag, then find the number of								
	marbles in the jar.											
	(1) 30	(2) 60	(3) 25	(4) 5								
70.	Which of the following	ng characteristics d	lescribes the geometric fig	gure below?								
			\bigcirc									
			e communes									
	(1) 2 faces and 2 vert	tices	(2) 1 rectangular	base and 2 vertices								
	(3) 2 circular bases an	nd 0 vertices	(4) 6 faces and 8	vertices								
71.	A man lost $₹$ 500 in (one transaction and (2) 1 \mp 200	d gained $\vec{\mathbf{x}}$ 300 in another.	Her net profit or loss is (4) $=$ $=$ 200								
77	(1) profit $\xi 800$	(2) loss < 800	(3) IOSS < 200	(4) gain < 200								
12.	Write the given expression into decimal $500 \pm 60 \pm 5 \pm 2/10 \pm 4/100$											
	(1) 56.534	(2) 565.34	(3) 560.34	(4) 561.34								
73.	A scalene triangle car	nnot be	(0) 00000	(.) 20112 .								
	(1) an acute angled tr	iangle	(2) an obtuse ang	led triangle								
	(3) A right-angled tria	angle	(4) An equilateral	triangle								
74.	Which of the following	ng shows the maxi	mum fall in temperature									
	(1) $5^{\circ}C$ to $1^{\circ}C$		(2) 4° C to -8° C	(2) 4° C to -8° C								
	(3) 0° C to -5° C		$(4) - 4^{\circ}C$ to $-8^{\circ}C$	$(4) - 4^{\circ}C$ to $-8^{\circ}C$								
75.	Of the two fractions w	with same numerat	or, the fraction with									
	(1) Greater numerator	is smaller	(2) Greater denom	inator is smaller								
	(3) Greater denomination	tor is greater	(4) None of these									
76.	Find the value of x is	following express	sions									
	$(2)^{3} (2)^{-6} (2)^{2x-1}$											
	$\left(\frac{-}{3}\right) \times \left(\frac{-}{3}\right) = \left(\frac{-}{3}\right)$											
	(1) $x = 2$	(2) $x = 0$	(3) $x = -1$	(4) $x = 1$								



The circumference of a circle is 88cm. Its diameter is 77. (1) 28 cm (2) 42 cm (3) 56 cm (4) none The simplified of the expression $\frac{(27)^5(-1)^{1771}}{(9)^7}$ is 78. (4) $\frac{-1}{81}$ (2) - 3(1) 3 (3) 279 79. A number is multiplied by 6 and 12 is added to the product. The result is 84. Then the number is (1) - 12(2) 72(3) 12 (4) - 72In a survey of 10 families, each family is found to have the following number of children 80. 1, 2, 3, 2, 3, 3, 1, 2, 1 & 2, number of families with 3 children is equal to the number of families with (1) 1 children (2) 2 children

(3) 3 children

- (4) None of these

Path to Succes		R INSTI (RAJAST		ASAT (SAMPLE PAPER)									CLASS : VII (VI to VII moving Students)							
	ANSWER KEY																			
Que.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Ans.	2	1	1	1	1	3	2	3	2	3	2	1	4	2	2	4	1	1	3	4
Que.	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
Ans.	4	3	2	4	3	2	1	2	3	3	2	3	4	1	2	1	1	1	4	1
Que.	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
Ans.	3	4	1	4	3	1	1	1	3	1	4	3	4	3	3	3	2	3	1	3
Que.	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80
Ans.	1	2	3	3	1	3	2	3	1	3	3	2	4	2	2	3	1	2	3	1
Sam	ole P	aper																Α	SAT	





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