

for



(ALLEN Scholarship Cum Admission Test)

CLASSROOM CONTACT PROGRAMME

PRE-NURTURE & CAREER FOUNDATION : CLASS-VIII

(FOR VII to VIII MOVING STUDENTS)



Corporate Office **ALLEN** CAREER INSTITUTE "SANKALP", CP-6, Indra Vihar, Kota (Rajasthan)-324005 **2** +91-744-2757575 info@allen.ac.in **WWW.allen.ac.in**

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 14 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. Tick (\checkmark) in the answer figures which comes next.

Problem Figure



Answer Figure

(1) 11



2. What number should replace the question mark in the diagram?

3	6	9						
5	8	20						
4	7	?						

(4) 12

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

(3) 28



(2) 14

Directions (Q.4 & Q.5) : Six persons A, B, C, D, E and F are sitting in two rows three in each, facing each other.

E is not at the end of any row.

D is second to the left of F.

C the neighbour of E, is sitting diagonally opposite to D.

B is the neighbour of F.

4. Who among the following are sitting in the same row ?

(1) A and B (2) C and F (3) C and B (4) A and E

5. If D and E exchange their seats who will be the neighbours of D in the new seating arrangement ?

(1) only C (2) only B (3) E and B (4) C and A



6. Find the matching pair.



Directions (Q.8 & Q.9) Nine cricket fans are watching a match in a stadium. Seated in one row, they are J, K, L, M, N, O, P, Q and R. L is to the right of M and at third place to the right of N. K is at one end of the row. Q is seated adjacent to both O and P. O is at the third place to the left of K. J is immediate next to left of O.



(1) 1 only (2) 2 only (3) 1 and 3 only (4) 1, 2, 3 and 4

(3)

(4)

(2)

C D

(X)

(1)

7.



- **12.** If 27 * 3 = 243 and 5 * 4 = 80. Then what is the value of 3 * 7 = ?
 - (1) 84 (2) 147 (3) 63 (4) 23
- **13.** In the following question, alphabet series is given with one term missing. Choose the correct alternative that will continue the same pattern and replace the question mark in the given series.

AYBZC, DWEXF, GUHVI, JSKTL ?

- (1) MQORN(2) MQNRO(3) NQMOR(4) QMONR
- 14. If the dotted line shows the mirror, find the correct image of the object from the options (1), (2), (3) &(4).



15. Choose from the four diagrams marked (1), (2), (3) and (4) the one that best illustrates the relationship among three given classes.Man_father_brother

Man, father, brother



16. Find the missing letter (?)

	Α	D	Н			
	F	Ι	М			
	?	N	R			
(1) K	ζ.			(2) N	(3) O	(4) P



17. In the following question, 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 figures which contains figure (X) as its part.



- **18.** Anmol finds that he is twelfth from the right in a line of boys and fourth from the left, how many boys should be added to the line such that there are 35 boys in the line ?
 - (1) 19 (2) 31 (3) 14 (4) 20
- **19.** How many dots are present on the dice face opposite to the three dots ?



20. In the following question, select a figure from amongst the four alternatives, which when placed in the blank space of fig.(X) would complete the pattern.





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. Choose the incorrect match.
 - (1) m/s velocity
 - (3) light year distance

(2) m/s^2 – acceleration

(4) m^2/s – displacement

22. Dhruv made this chart about an experiment in his science class. In this experiment, the students watched a piece of ice warm and change from a solid to a gas on a stove.

What should Dhruv label the x-axis and the y-axis on the chart?





- (1) The level of alcohol falls in both limbs.
- (2) The level of alcohol in the limb X rises while that in limb Y falls.
- (3) The level of alcohol in limb X falls while that in limb Y rises.
- (4) There is no change in the levels of alcohol in the two limbs.



26.	A virtual image can never be										
	(1) smaller than the object.	(2) larger than the object.									
	(3) captured on paper.	(4) upright if the object is upright.									
27.	A car moves with a speed of 60 km h^{-1} for 20 min and then at a speed of 30 km h^{-1} for the next 20 min										
	The total distance covered by the car is										
	(1) 10 km	(2) 20 km									
	(3) 30 km	(4) 40 km									
28.	Which of the following motions is not uniform	?									
	(1) A satellite in orbit around the Earth.										
	(2) A ball rolls along a table without changing	velocity.									
	(3) A jogger runs 50 m along a straight track a	t a constant speed.									
	(4) An elevator moves vertically upward at zer	o acceleration.									
29.	Freezing point on a thermometer is marked as 20° and boiling point as 150°. A temperature of 60 °C										
	on this thermometer will be read as										
	(1) 25° (2) 65°	(3) 98° (4) 110°									
30.	Stainless steel pans are usually provided with copper bottoms. The reason for this could be that										
	(1) Copper bottom makes the pan more durabl	e									
	(2) Such pans appear colourful										
	(3) Copper is a better conductor of heat than the	e stainless steel									
	(4) Copper is easier to clean than the stainless	steel									
31.	As the distance of an object from a converging	mirror decreases, the image									
	(1) increases in size and moves away from the	mirror.									
	(2) increases in size and moves toward the mir	ror.									
	(3) decreases in size and moves away from the	mirror.									
	(4) decreases in size and moves toward the min	ror.									

32. In the diagram shown, M is a mirror, O is an object and I is its image. Predict the nature of the mirror.



- (1) Convex mirror
- (3) Plane mirror

- (2) Concave mirror
- (4) Nothing can be predicted



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. Which of these will react with oxygen to form an acidic oxide?
 - (1) Sodium (2) Sulphur
 - (3) Calcium (4) Zinc
- **34.** Which of the following is true for acids ?
 - (1) Bitter and change red litmus blue.
 - (2) Sour and change red litmus blue.
 - (3) Sour and change blue litmus red.
 - (4) Bitter and change blue litmus red.
- **35.** Which of the following are chemical changes?
 - (i) Decaying of wood
 - (ii) Burning of wood
 - (iii) Growth of wood in a tree.
 - (iv) Hammering of a nail into a piece of wood.
 - (1) (i) & (ii) (2) (ii) & (iv)
 - (3) (iii) & (iv) (4) (i), (ii) & (iii)
- 36. Three substances given below are kept in open for a few days and some changes were observed.



Which of the substances will show chemical changes ?

- (1) Eggs (2) Plastic bottle
- (3) Both Eggs and moth balls (4) None of these
- **37.** Which of the following statement is **INCORRECT**?
 - (1) H_2SO_4 is known as KING OF CHEMICALS.
 - (2) Aqua Regia is a mixture of conc. HCl and conc. HNO_3 in the ratio of 3:1
 - (3) The acid found in lemons is oxalic acid.
 - (4) The characteristic properties of acids is due to the hydronium ion.



38. Rishabh was performing an experiment with a blue coloured solution (X) in a beaker. By mistake a shaving blade fell into the beaker. After half an hour, he found that the colour of the solution in beaker changed to green (Y). What could be the solutions X and Y respectively ?



- (1) Copper sulphate, Iron sulphate
- (2) Iron sulphate, Copper sulphate
- (3) Iron sulphate, Zinc sulphate
- (4) Copper sulphate, Zinc sulphate
- **39.** State which of the following is not likely to be an element.
 - I. On heating it gives off a gas and leaves a residue.
 - II. Burns in air to form carbon dioxide and water.
 - III. Changes into solid at 273 K and to a gas at 373 K.
 - (1) I (2) II and III
 - (3) I and III (4) I, II, III
- **40.** A student is given a mixture containing sand and ammonium chloride. He is asked to separate these two components. The correct way to separate these two components is





41. Which of the following solids undergo sublimation upon heating ?

- (1) Sugar
- (3) Ice
- **42.** Sunidhi was asked by her teacher to prepare a dilute sulphuric acid from concentrated sulphuric acid. What should she do ?

(2) NaCl

(4) Camphor

- (1) Add water to the acid
- (2) Add acid to the water
- (3) Add a base to the concentrated acid
- (4) Add an alkali to the concentrated acid
- **43.** Match the following

	Column I	Column II							
(a)	No more solution can be dissolved	(i)	Threshing						
(b)	More solute can be dissolved	(ii)	Centrifugation						
(c)	Conversion of water vapour into water	(iii)	Saturated solution						
(d)	Removal of grain from stalk	(iv)	Unsaturated solution						
(e)	Separation of cream from curd	(v)	Condensation						
(1) $a \rightarrow (ii), b \rightarrow (iv), c \rightarrow (v), d \rightarrow (i), e \rightarrow (iii)$									
(2) a	\rightarrow (iv), b \rightarrow (iii), c \rightarrow (v), d \rightarrow (ii), e \rightarrow	• (i)							

(3) $a \rightarrow (iii), b \rightarrow (iv), c \rightarrow (v), d \rightarrow (i), e \rightarrow (ii)$

(4) $a \rightarrow (iv), b \rightarrow (iii), c \rightarrow (v), d \rightarrow (i), e \rightarrow (ii)$

SECTION-C : **BIOLOGY**

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

44. Match Column I with Column II and choose the correct option.

	Column I		Column II
P.	Insect	I.	Skin
Q.	Fishes	II.	Gills
R.	Earthworm	III.	Trachea
S.	Human	IV.	Lungs

(1) P - III, Q - II, R - I, S - IV

(3) P - IV, Q - III, R - II, S - I

(2) P - I, Q - II, R - III, S - IV

(4) P - III, Q - I, R - II, S - IV

45. The first compartment of cattle's stomach whose main function is to digest cellulose is

- (1) Rumen (2) Reticulum
- (3) Omasum (4) Abomasum
- 46. Which of the following best explains why many birds and mammals migrate during the winter?
 - (1) To escape predators.
 - (2) To reproduce in a more favourable environment.
 - (3) To find a better environment in which to settle permanently.
 - (4) To find a more favourable environment in which to hibernate.



- 47. Digestion of carbohydrate takes place in
 - (1) Oesophagus and small intestine
 - (2) Stomach and large intestine
 - (3) Buccal cavity and small intestine
 - (4) Small intestine and large intestine

48. On what would an animal with a long digestive system and a large caecum probably feed on?

- (1) Insects (2) Bacteria
- (3) Plants (4) Herbivores

49. Abhi fell down from a tricycle and got minor injuries on his body. He noticed that blood was coming out from the injuries but it stopped after sometime and a dark red clot was formed there. The clot is formed because of the presence of

- (1)Red blood cells (2) Plasma
- (3) White blood cells (4) Platelets
- 50. If you chew on a piece of bread long enough, it will begin to taste sweet because
 - (1) maltase is breaking down maltose
 - (2) lipases are forming fatty acids
 - (3) amylase is breaking down starches to disaccharides
 - (4) disaccharides are forming glucose
- 51. What type of plant would be best suited for the environment shown below?



- (1) A large plant with large leaves (2) A small plant with large leaves
- (3) A large plant with no leaves (4) A small plant with small and scaly leaves
- 52. Which reaction takes place in the thylakoid discs (1) of the chloroplast?



- (1) Carbon fixation
- (3) Light-independent reaction

- (2) Light-dependent reaction
- (4) Glycolysis



53. The following graphic shows a duck's feet. Which of the following explains how the structure of the feet enables the duck to survive in its environment ?



- (1) The number of toes on the foot enables the duck to capture prey.
- (2) The webbing on the feet enables the duck to move through water.
- (3) The shape of the foot enables the duck to walk to find sources of water.
- (4) The presence of claws on the feet enables the duck to glide through the air.
- 54. The transpiration in plants will be lowest when
 - (1) There is high humidity in the atmosphere.
 - (2) There is excess of water in the cell.
 - (3) Environmental conditions are very dry.
 - (4) There is high wind velocity.
- 55. Black bears have thick fur that traps air. How does this air insulate the bear in winter ?
 - (1)The air reduces thermal (heat) energy flow to the environment.
 - (2) The air produces thermal (heat) energy to keep the bear warm.
 - (3) The air transforms chemical energy to thermal (heat) energy.
 - (4) The air transfers thermal (heat) energy to the bear.

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. Of the three angles of a triangle, one is twice the smallest and another is three times the smallest. Find the smallest angle.

	(1) 30°	(2) 40°	(3) 35°	(4) 50°				
57.	$(-27) \times (-16) + (-27)$	\times (-14) = ?						
	(1) -810	(2) 810	(3) -54	(4) 54				
58.	How much pure alcol	nol must be added to 400	0 ml of a 15% solution	to make its strength 32% ?				
	(1) 40 ml	(2) 125 ml	(3) 100 ml	(4) 150 ml				
59.	A man goes 10 m du	e east and then 24 m du	e north. Find his distant	ce from the starting point.				
	(1) 26 m	(2) 25 m	(3) 24 m	(4) 27 m				
60.	If a, b, c are integers,	such that $a > b$, then						
	(1) $a \times c > b \times c$, if c	is positive	(2) $a \times c < b \times c$, if c i	s positive				
	(3) $a \times c > b \times c$, if c	is negative	(4) None of these					



- 61. In a $\triangle ABC$, AD is the altitude from A such that AD = 12 cm, BD = 9 cm and DC = 16 cm. Examine if $\triangle ABC$ is right angled at A?
 - (1) Yes (2) No
 - (3) Cannot say (4) None of these

62. The weight of 34 bags of sugar is 3483.3 kg. If all bags weigh equally, find the weight of each bag.

- (1) 102.45 kg (2) 102 kg
- (3) 101.45 kg (4) 101 kg
- 63. In figure, line 1 || m, $\angle 1 = 60^{\circ}$ and $\angle 2 = 100^{\circ}$, find $\angle 4$





69.	Two poles of heights 6 m and 11 m stand on a plane ground. If the distance between their feet is 12 m, Find the distance between their tops.													
	(1) 13 m	(2) 10 m	(3) 9 m	(4) 11 m										
70.	The value of $1 + \frac{1}{1 + \frac{1}{1 - \frac{1}{2}}}$ is -													
	(1) $\frac{3}{4}$	(2) $\frac{4}{3}$	(3) $\frac{5}{3}$	(4) None of these										
71.	Which of the followin	g numbers would not hav	ve digit 1 at units place	?										
	$(1) (29)^2$		$(2) (41)^2$											
50	$(3) (53)^2$		$(4) (69)^2$											
12.	Ages of two friends are in the ratio $2:1$. If the sum of their ages is 51. Then their ages are													
	(1) 34 yrs, 20 yrs		(2) 34 yrs, 17 yrs											
	(3) 20 yrs, 10 yrs (4) 30 yrs, 15 yrs													
73.	If the numbers 7, 14,	28 are in continued prop	ortion, then the mean pr	oportion between 7 and 28 is										
	(1) 7	(2) 14	(3) 28	(4) 196										
74.	The value of expressi	on												
	$10,000 \div \{(80 + 1),(1),(1),(1),(1),(2),(2),(3),(3),(3),(3),(3),(3),(3),(3),(3),(3$	$00 \div 5) \times 100$ is	(2) 2											
	(1) 1	(2) 2	(3) 3	(4) 4										
75.	If a rational number $\frac{x}{y}$	<1, where x and y are	both positive integers, the	hen which of the following is										
	greater than 1 ?													
	(1) $\frac{x}{2y}$	$(2) \frac{x}{y^2}$	(3) $\frac{y}{x}$	(4) x – y										
76.	For what value of x, t 7, 9, 11, 17, 11, 19, 2	he mode of the following 1, 9, x- 4.	g data is 11?											
	(1) 11	(2) 15	(3) 7 (4) 12											
77.	In the given fig PQ	RS, $\angle PAB = 60^{\circ}$ and $\angle A$	$CS = 100^{\circ}$. Then $\angle BAC$	= ?										
		← P ← C ← R B	$\begin{array}{c c} A & Q \\ \hline 50^{\circ} \\ \hline 100^{\circ} \\ C & S \end{array}$											

(1) 40° (2) 60° (3) 80° (4) 50°



78. The name of the figure which has 6 vertices, 9 edges and 5 faces is

(1) cuboid

- (3) cone (4) triangular prism
- 79. If the base of a triangle is halved and its height is doubled, then the area of the resulting triangle.

(2) cube

- (1) increases (2) decreases
- (3) doubles (4) remain same
- **80.** A cistern can be filled by one tap in 4 hrs. and another tap in 6 hrs. How long will it take to fill the cistern if both taps are opened together?
 - (1) $\frac{24}{5}$ (2) $\frac{10}{24}$ (3) $\frac{12}{5}$ (4) $\frac{14}{5}$

|--|

ASAT (SAMPLE PAPER)

CLASS : VIII (VII to VIII 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	2	3	4	4	2	2	2	4	4	2	2	2	2	4	1	2	4	3	1
Que.	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
Ans.	4	1	3	2	3	3	3	1	3	3	1	2	2	3	4	4	3	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.	4	2	3	1	1	2	3	3	4	3	4	2	2	1	1	1	2	3	1	1
Que.	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80
Ans.	1	1	4	2	4	1	4	1	1	2	3	2	2	1	3	2	1	4	4	3
Sam	Sample Paper ASAT																			





REGISTER KIYA KYA? Allen Scholarship Cum Admission Test - Asat

Sunday 7,14 & 28 April

An Opportunity Like Never Before

For JEE (Main+Advanced) | NTSE | OLYMPIADS | PNCF | Class 6th to 12th (Direct Admission in JEE Main & NEET/AIIMS Courses)

- **𝔅** Get Scholarship Upto 90%
- Study With Future Toppers
- Get Mentored By Result Producing Faculties
- 𝞯 Get National Competition Under One Roof and Much More...

To Apply Online Log on to **www.allen.ac.in** or walk-in to ALLEN Center for Application Form

path to success CAREER INSTITUTE KOTA (RAJASTHAN) Corporate Office: "SANKALP", CP-6, Indra Vihar, Kota (Raj.), India, 324005 O744-2757575 info@allen.ac.in www.allen.ac.in SUNDAY OPEN

STUDY CENTERS: KOTA (Corporate Office Tel: 074-2757575) AHMEDABAD (Tel: 079-49033100) BENGALURU (Tel: 1080-46704000) BHILWARA (Tel: 8432801888) BHUBANESWAR (Tel: 9116687314) CHANDIGARH (Tel: 0172-5257100) CHENNAI (Tel: 9116687316) GOVAHATI (Tel: 911687316) GO