

### INSTRUCTIONS

#### Time duration: 2:00 hours.

#### Maximum Marks: 320

This Question Paper contains 80 MCQs with 4 choices (Subjects: Physics: 15, Chemistry: 15, Biology: 15 & Maths: 15, Mental ability: 20).

**Marking Scheme:** For each correct answer **4 marks** are awarded and for each wrong answer **–1 mark** is awarded. In case of no response zero mark will be awarded.





# **SECTION - A : PHYSICS**

This section contains **15 Multiple Choice Questions**. Each question has four choices (1), (2), (3) and (4) out of which ONLY ONE is correct.

1. The diagram shows the variation of air pressure from an alarm siren at particular instant. The speed of sound in the air is 340 m/s.



What is the period of alarm siren?

- (1) 0.98 ms (2) 1.2 ms (3) 2.35 ms (4) 2.9 ms
- 2. Speed cameras are used to detect motorists who break the speed limit. A number of lines 2 m apart are painted on the road. As a speeding car crosses the painted lines, the camera takes two photographs, 0.5 second(s) apart.



(3) 70 m/s

The speed of the car in the photographs is

(2) 14 m/s

(2) 40 W

(4) 28 m/s

3. An electric bulb rated 220 V, 60 W is working at full efficiency. Another identical bulb is connected across the mains as shown



What is the total power?

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(1) 20 W
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(1) 10 m/s

(3) 30 W

(4) 60 W

4. The diagram shows a bar magnet placed in a uniform magnetic field. When the magnet is allowed to move freely, it will





5. A heater boils 1 kg of water in time  $t_1$  and another heater boils the same water in time  $t_2$ . If both the heaters are connected in parallel, the combination will boil the water in time

(1) 
$$\frac{t_1 t_2}{t_1 - t_2}$$
 (2)  $\frac{t_1 t_2}{t_1 + t_2}$  (3)  $\frac{t_1^2 + t_2^2}{t_1 + t_2}$  (4)  $\frac{t_1^2 - t_2^2}{(t_1 - t_2)}$ 

6. The magnetic field lines due to a bar magnet are correctly shown in figure.



7. The wire of a heating element has a resistance R. The wire breaks and is replaced by a different wire. Data for the original wire and the replacement wire is as shown in the table.

	length	diameter	resistivity of metal
original wire	l	d	ρ
replacement wire	l	2d	2 ho

What is the resistance of the replacement wire?

(2)  $\frac{R}{2}$ 

(1) 
$$\frac{R}{4}$$

(3) R

(4) 2R

- 8. A child is stuck on a frictionless horizontal surface and cannot exert any horizontal force by pushing against the surface. How can he get off?
  (1) D = 100 (2) D = 1
- (1) By running (2) By rolling (3) By jumping (4) By spitting or coughing9. A wire is placed between the poles of a horseshoe magnet. There is a current in the wire in the direction shown, and this causes a force to act on the wire.



Three other arrangements, P, Q and R, of the wire and magnet are set up as shown.



Which arrangement or arrangements will cause a force in the same direction as the original arrangement?

(1) P, Q and R (2) P and Q only (3) R only (4) P only



10. A small object of mass = 234 g slides along a track with elevated ends and a central flat part, as shown in below figure. The flat part has length L = 2.16 m. The curved portions of the track are frictionless; but in traversing the flat part, object loses 688 mJ of mechanical energy, due to friction. The object is released at point A, which is at height h = 1.05 m above the flat part of the track. Where does the object finally come to rest ?



- (1) Particle will move back and forth across the flat portion 3.5 times while attempting one last right to left journey.
- (2) Particle will move back and forth across the flat portion 4 times while attempting one last left to right journey.
- (3) Particle will move back and forth across the flat portion 3.5 times while attempting one last left to right journey.
- (4) It will never stop.
- 11. The table below shows the mass and the weight of a certain object on Earth.

Mass (kg)	Weight (N)
6.0	60

What are the approximate mass and approximate weight of the same object on the Moon?

(1)	Mass (kg)	Weight (N)		Mass (kg)	Weight (N)
(1)	1.0	10	(2)	6.0	10
	Mass (kg)	Weight (N)		Mass (kg)	Weight (N)
(3)	6.0	360	(4)	36.0	360

**12.** An isolated system consists of two bodies on which no external forces act. The two bodies collide with each other and stick together on impact.

	Total kinetic energy before and after collision	Total momentum before and after collision		
Α	different	different		
В	different	the same		
С	the same	different		
D	the same	the same		

Which row correctly compares the total kinetic energy and the total momentum of the bodies before and after the collision?

(1) $(2)$ $D$ $(3)$ $C$ $(1)$	(1) A	(2) B	(3) C	(4) D
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**13.** Four lights and a fan connected on the same circuit must each be able to operate independently. An electrician used the symbols shown below to draw a diagram of the circuit.



Which of the following circuit diagrams did the electrician draw?



14. Data for various electrical appliances is given in the table below.

Appliance	Power (W)	Potential difference (V)	Current (A)
Car headlamp	48	12	4
TV	240	240	
Hairdryer		240	2
Iron	960	240	
Kettle		240	10

The power for the hairdryer and current for the iron are, respectively :

(1) 480W ; 0,25 A

(3) 480W ; 4A

(2) 240W ; 4A(4) 960W ; 2A



**15.** Four students were asked to classify the activities of the people in the picture below as examples of either potential or kinetic energy.



Which student correctly classified the activities?

	Studer	nt 1		Studer	nt 2
	Activity Observed	Classification of Activity		Activity Observed	Classification of Activity
	Girl swimming laps	Potential energy		Girl swimming laps	Potential energy
(1)	Boy on diving board	Kinetic energy	(2)	Boy on diving board	Potential energy
	Girl hitting volleyball	Potential energy		Girl hitting volleyball	Kinetic energy
	Boy holding volleyball	Kinetic energy		Boy holding volleyball	Kinetic energy
	Studer	nt 3		Studer	nt 4
	Activity	Classification		Activity	Classification
	Observed	of Activity		Observed	of Activity
	Girl swimming laps	Kinetic energy		Girl swimming laps	Kinetic energy
(3)	Boy on diving board	Kinetic energy	(4)	Boy on diving board	Potential energy
	Girl hitting volleyball	Potential energy		Girl hitting volleyball	Kinetic energy
	Boy holding volleyball	Potential energy		Boy holding volleyball	Potential energy

## **SECTION-B : CHEMISTRY**

This section contains **15 Multiple Choice Questions.** Each question has four choices (1), (2), (3) and (4) out of which ONLY ONE is correct.

16.	Which of the fol	lowing is the formula of	the compound nickel	bisulphate?	
	(1) NiHSO <sub>4</sub>	(2) $Ni_2HSO_4$	(3) $Ni_2SO_4$	(4) $Ni(HSO_4)_2$	
17.	10 g sample of a	mixture of CaCl, and Na	Cl is treated to precipi	tate all the calcium as CaCO <sub>3</sub> .	This
	CaCO <sub>3</sub> is heated	to convert all the Ca to C	CaO and the final mass	s of CaO is 1.68 g. The percent	t by
	mass of CaCl <sub>2</sub> in	the original mixture is			
	(1) 33.3 %	(2) 16.2 %	(3) 30 %	(4) 11.0 %	

**18.** The table below lists three characteristics of an atom of an element.

Characteristics of an Element

Number of	Number of	Number of
Protons	Neutrons	Valence Electrons
37	48	1

An atom of which element is described by the data in the table?

(1) Radon (Rn) (2) Cadmium (Cd) (3) Rubidium (Rb) (4) Astatine (At)



- How many gram ions of  $SO_4^{-2}$  are present in 1 gram molecule of  $K_2SO_4$ .  $Al_2(SO_4)_3$ .  $24H_2O$ ? 19. (3) 1(4) 4(1) 2(2) 3
- 20. An ore of potassium is
  - (1) Bauxite (2) Dolomite
  - (3) Carnallite (4) Cryolite
- Equal-sized pieces of aluminium were placed in test tubes containing equal volumes of acid at 21. different temperatures. From the statements below identify the actions that a student could take to increase the reaction rate in the test tubes.



- i. adding more of the acid to the test tube
- ii. using more concentrated acid
- iii. grinding up the pieces of aluminium before adding the acid
- adding water to the test tube iv.
- v. sealing the test tube with a stopper
- (3) i, ii, iii v (1) i, ii, v (2) ii, iii (4) i, iv, v
- The pH number of a liquid tells its level of acidity or alkalinity. Some chemicals have different 22. colours when put into liquids with different levels of acidity. These chemicals are called indicators. The following table shows the colour changes that occur with four different acid-base indicators.

	Colour of Indicator													
Indicator	Ac	idic					pl	H				1	Basic	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Α		red				blue								
В		clear									pink			
С	red orange													
D		yellow purple												

Four liquids 1, 2, 3 and 4 were tested with indicators A, B, C, and D. The results are recorded below. Which liquid has the highest pH?

1 1	Colour of Indicator								
Liquid	Indicator A	Indicator <b>B</b>	Indicator C	Indicator D					
1	blue	clear	orange	purple					
2	blue	pink	orange	purple					
3	red	clear	red	yellow					
4	red	clear	orange	yellow					

- If H<sup>+</sup> ion concentration of a solution is increased 10 times its pH will 23.
  - (1) increases by 1

(2) remains unchanged

- (3) decreases by 1

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(4) increases by 10



24. For an investigation a student poured a blue solution of  $CuSO_4$  into a beaker. The student placed a shiny, silver-coloured strip of zinc metal in the solution and observed the changes.

Observations of an Investigation



Blue solution Zinc in blue solution Zinc in clear solution

The student inferred that a chemical reaction occurred. What evidence supports this inference?

- (1) A dark solid formed on the zinc metal.
- (2) The zinc metal remained silver-coloured and shiny.
- (3) The  $CuSO_4$  solution turned blue when the zinc metal was added.
- (4) None of these
- **25.** Removal of CO<sub>2</sub> and H<sub>2</sub>O from atmospheric air by using KOH and anhydrous CaCl<sub>2</sub> is an example of \_\_\_\_\_ and \_\_\_\_\_ changes respectively.
  - (1) chemical, chemical

(2) physical, physical

(3) chemical, physical

- (4) physical, chemical
- 26. Electron energy is a negative energy because
  - (1) electron carries negative charge
  - (2) energy is zero near the nucleus and decrease as the distance from the nucleus increase
  - (3) energy is zero at infinite distance from the nucleus and decreases as the electron come closer to the nucleus
  - (4) there are inter electronic repulsion
- 27. In which one of the following pairs the two species are both isoelectronic and isotopic? (Atomic numbers : Ca = 20, Ar = 18, K = 19, Mg = 12, Fe = 26, Na = 11) (1)  ${}^{40}Ca^{2+}$  and  ${}^{40}Ar$  (2)  ${}^{39}K^+$  and  ${}^{40}K^+$  (3)  ${}^{24}Mg^{2+}$  and  ${}^{25}Mg$  (4)  ${}^{23}Na$  and  ${}^{23}Na^+$
- **28.** Which of the following is correct about electrorefining of metals?
  - (1) Pure metal is made as anode.
  - (2) Impure metal is made as cathode.
  - (3) The metal ions move to anode from cathode through the solution.
  - (4) It is done by using electricity.
- 29. Which of the following reactions is a synthesis reaction ?
  - (1) When steam is passed over red hot coke, a mixture of carbon monoxide and hydrogen is formed.
  - (2) Sodium reacts with water to form sodium hydroxide and hydrogen.
  - (3) When the milk of lime (calcium hydroxide) is added to hot sodium carbonate solution, sodium hydroxide is obtained and calcium carbonate separates out as mud.
  - (4) Stannic chloride is prepared by passing chlorine into molten tin.
- **30.** A sodium salt of unknown anion when treated with CaCl<sub>2</sub> gives white precipitate only on boiling. The anion is
  - (1)  $SO_4^{2-}$  (2)  $HCO_3^{-}$  (3)  $CO_3^{2-}$  (4)  $NO_3^{-}$



# **SECTION-C : BIOLOGY**

This section contains **15 Multiple Choice Questions.** Each question has four choices (1), (2), (3) and (4) out of which ONLY ONE is correct.



- (1) Diphtheria (2) Plague (3) Tetanus (4) Rabies
- 33. Which of the following is correct explanation about cell X and Y in the given images?



- (1) Detect changes in the biotic factors present in the environment.
- (2) Maintain homeostasis by controlling water loss.
- (3) Store excess heat during the day and remove the heat at night.
- (4) Absorb light energy necessary for cellular respiration.
- 34. Two arteries and two veins are labelled in the diagram given below. Which of the following are arteries?





(1) A and B



**35.** Look at the diagram given below and identify the position from where nerves to the upper limb originate.



- **36.** A girl was walking slowly to the school. One day suddenly she began breath rapidly.What do you think may have caused her breathing rate to increase?
  - (1) too much minerals in her blood.
- (2) too much salt in her blood.
  - (3) too much nitrogen in her blood. (4) too much carbon dioxide in her blood.
- **37.** The arrows in the diagram below represent the movement of materials. This movement of materials indicated by the arrows is most directly involved in the processes of







### CLASS-X

39. The following table shows selected characters used in analyzing the Phylogenetic relationship of four plant taxa: (YES means present that character)

	Characters							
Taxon	Xylem / Phloem	Wood	Seed	Flowers				
A <sub>1</sub>	YES	NO	NO	NO				
A <sub>2</sub>	YES	YES	YES	YES				
A <sub>3</sub>	YES	YES	YES	NO				
A <sub>4</sub>	NO	NO	NO	NO				

- So, Taxa  $A_1$ ,  $A_2$ ,  $A_3$  and  $A_4$  are respectively
- (1) Ferns, Oaks, Pines, Hornworts (2) Oaks, Pines, Hornworts, Ferns
- (3) Ferns, Pines, Oaks, Hornworts (4) Hornworts, Pines, Oaks, Ferns
- 40. Which of these best describes carbon as it travels through the carbon cycle ?
  - (1) Carbon is totally removed from the cycle when an animal dies.
  - (2) Carbon exists as a gas throughout the cycle.
  - (3) The total mass of carbon remains constant throughout the cycle.
  - (4) The carbon atoms are only found in living organisms in the cycle.
- Study the experimental setup given below in which water level rises in the test tube then which of 41. the following option correctly depicting this experiment ?



- (1) Aerobic respiration by germinating seed.
- (3) Potassium hydroxide is necessary for respiration. (4) None of these
- 42. Which of the following is a set of viral diseases ?
  - (1) AIDS, influenza, T.B. (2) AIDS, influenza, common cold
  - (3) Influenza, Typhoid, T.B.

- (4) Influenza, cholera, typhoid
- **43**. The diagram below shows the main organs of nitrogenous waste excretion and their blood supply. Arrows in the diagram below show blood flow direction then labelled structure '1' represents



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(1) Renal vein



44.	The table below lists			
	Organism	Met	hod	
	1. Oak tree	Make food by photosynt	thesis.	
	2. Mushroom	Absorbs nutrients from c	lead plants and animals.	
	3. Cotton tail rabbit	Eats grasses.		
	4. Mountain lion	Eat deer, fox etc.		
	Which organism obtain	in energy without depend	ing on other organism?	,
	(1) Oak tree	(2) Mushroom	(3) Cotton tail rabbit	(4) Mountain lion
45.	Which of the following	ng phylums contains mal	pighian tubule as a excr	etory system?
	(1) Cnidaria	(2) Arthropoda	(3) Porifera	(4) Both (2) and (3)
		<b>SECTION-D</b> : N	<b>IATHEMATICS</b>	
This	section contains 15 Mu	ultiple Choice Questions	• Each question has four	choices (1), (2), (3) and (4)
out c	of which ONLY ONE	is correct.	1	
46	How many positive		00 have reciprocals	with terminating decimal
40.	representations?	integers less than 1	oo nave recipiocais	with terminating deerman
	(1) 13	(2) 14	(3) 21	(4) 25
47.	Ram, Shyam, Tarun a	nd Varun together had a	total amount of Rs 240	with them. Ram had half of
	the total amount with	the others. Shyam had on	e-third of the total amou	nt with the others. Tarun had
	one-fourth of the total	amount with the others.	Find the amount with V	Varun (in Rs).
40	(1) 64	(2) 70	(3) 52	(4) 58
48.	The condition that x <sup>3</sup>	$-ax^2 + bx - c = 0 ma$	y have two of the roots	s equal to each other but of
	opposite signs is	2		
	(1) $ab = c$	(2) $\frac{2}{3}a = bc$	(3) $a^2b = c$	(4) None of these
49.	The total number of p	propositions in the book	'Elements' are	
	(1) 460	(2) 465	(3) 13	(4) 55
50.	Find the value of x in	the figure given below.		
			C	
			30°	
	, , , , , , , , , , , , , , , , , , ,			
		A 48° I	) ()x	
			40	
	(1) 118°	$(2) 20^{\circ}$	™B (3) 72°	(4) <b>223</b> °
51.	In the figure given hel	ow ABC is an equilateral	triangle and PORS is a	square of side 6 cm By how
	many $cm^2$ is the area	of the triangle more than	that of the square?	square of side o eni. By now
		A	1	
		/	$\backslash$	
		P /	$- \sqrt{Q}$	
		B∕⊥	$-\frac{1}{R}C$	
		5	1	



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(4) 9

(4)  $\frac{29}{30}$ 

52.	In the figure,	AP = PM =	MY, $PQ =$	1, QZ	= 8. Find	AM
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(1)  $\frac{18}{3}$ (2)  $\frac{16}{3}$ 53. In a triangle if each side of a triangle is halved, then what is the percentage change in its area.

(1) 75% increase (2) 75% decrease

(2)  $\frac{23}{30}$ 

(3) 25% increase (4) 25% decrease

54. A rectangular tank has an inner length and breadth of 24 m and 20 m respectively. Water flows through an inlet pipe at 180 m per minute. The cross-sectional area of the pipe is  $0.5 \text{ m}^2$ . The tank takes half an hour to get filled. Find the depth of the tank (in m). (1) 4.625 (2) 6.125(3) 5.625(4) 5.125

If a two digit number is chosen at random, find the probability that the number chosen is not a 55. prime number.

(3)  $\frac{17}{30}$ 

(1) 
$$\frac{13}{30}$$

56. Which of the following is true?

- (1)  $\tan^2 x + \sec^2 x = \sin^2 x + \cos^2 x$ (2)  $\operatorname{cosec}^2 x + \operatorname{cot}^2 x = \tan^2 x - \operatorname{sec}^2 x$ (3)  $\sin^2 x + \cos^2 x = \tan^2 x - \sec^2 x$ (4)  $\operatorname{cosec}^2 x - \operatorname{cot}^2 x = \operatorname{sec}^2 x - \operatorname{tan}^2 x$
- If  $\cos^2\theta + 2\sin^2\theta + 3\cos^2\theta + 4\sin^2\theta + \dots(200)$  terms = 10025, where  $\theta$  is an acute angle, then 57. the value of  $\sin\theta - \cos\theta$  is

(1) 
$$\frac{1-\sqrt{3}}{2}$$
 (2)  $\frac{1+\sqrt{3}}{2}$  (3)  $\frac{\sqrt{3}-1}{2}$  (4) 0

- 58. The mean of 90 items was found to be 45. Later on, it was discovered that two items were misread as 26 and 19 instead of 62 and 09 respectively. The correct mean is (approximately) (1) 49.0 (2) 45.0 (3) 45.3 (4) 49.3
- 59. In the figure given below O is the centre of the circle. Line AB intersects the circle only at point B and line DC intersects the circle only at point C. If the circle has a radius of 2 cm, then AC is



(2) 2 +  $\sqrt{2}$  cm (3)  $4 + \sqrt{2}$  cm (4)  $2 + 2\sqrt{2}$  cm (1) 4 cm The sum of all the coefficients of the polynomial  $(x - 2)^6 (x - 4)^2 + (x + 1)^3 (x - 2)^3 + (x + 1)^2 (x - 4)^3$  is **60**. (1) - 45(2) - 107(3) - 152(4) - 83

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TALLENTEX

## **SECTION-E : 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. 61. Select the correct combination of mathematical signs to replace \* signs and to balance the given equation: 18 \* 6 \* 3 \* 12 \* 24  $(3) +, \div, \times, =$  $(1) \div, -, =, \times$ (2)  $\times, \div, -, =$  $(4) \times, =, \div, +$ 62. In a row of students, Deepak is seventh from the left and Madhu is twelfth from the right. If they interchange their positions, Deepak becomes twenty-second from the left. How many students are there in the row ? (1) 19(2) 31 (3) 33 (4) Can't be found A watch was set correct at 12'O clock. It loses 10 minutes per hour. What will be the angle 63. between the two hands of the clock after 1 hour ?  $(1) 75^{\circ}$ (2)  $85^{\circ}$  $(3) 90^{\circ}$ (4) 105° 64. Pick up from the answer figures, one which will continue the series to the problem figures. LL LL L LL LLI IL T 1 1 (4)(1)(2)(3)There are two clocks A and B. The hands of the clock A moves normally as clockwise while in **65**. clock B (due to reverse connection) they move anticlockwise. Initially the two hands of both clocks are at mark showing 12. If after some time, the angle between the directions of two hour hands is 90° (for the first time), then at the same instant the angle between the directions of minute hand will be  $(1) 0^{\circ}$ (4) 180°  $(2) 60^{\circ}$  $(3) 120^{\circ}$ A, B, C, D, E, F and G are playing cards sitting around a circular table. **66**. D is not the neighbour of C or E. A is neighbour of B and C. G who is second to the left of D, is the neighbour of E and F. Which of the following is correct? (1) B is between A and D (2) D is between F and G (3) F is a neighbour of B (4) C is a neighbour of D 67. The outer border of width 1 cm of a cube with side 5 cm is painted yellow on each side and the remaining space enclosed by this 1 cm path is painted pink. This cube is now cut into 125 smaller cubes of each side 1 cm. The smaller cubes so obtained are now separated. How many smaller cubes have at least one face coloured : (1) 27(2) 98 (3) 48 (4) 121 **68**. Select a suitable figure from the Answer Figures that would replace the question mark (?). Problem Figures: Answer Figures: ? (A) (B) (C) (D) (1)(2)(3)(4)**69**. A solid cube has been painted yellow, blue and black on pairs of opposite faces. The cube is then cut into 36 smaller cubes such that 32 cubes are of the same size while 4 others are of bigger sizes. Also no faces of any of the bigger cubes is painted blue. How many cubes do not have any of their faces painted yellow ?

(1) 0 (2) 4 (3) 8 (4) 16

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TALLEN'S Talent Encouragement Exam

- 70. Two statements followed by four conclusions numbered I, II, III and IV. You have to take the given two statements to be true even if they seem to be at variance from commonly known facts. Read the conclusions and then decide which of the conclusions logically follows from the two given statements. Statements :
  - I. Some doors are mangoes.
  - II. All mangoes are bananas .

**Conclusions** :

(3) All follow

- I. All bananas are mangoes .
- II. All doors are bananas.
- III. Some doors are bananas .
- IV. Some mangoes are doors .
- (1) Only I and II follow
- (4) Only III and IV follow

(2) None follows

- 71. Each of the 6 friends A, B, C, D, E, and F wears a different brand shirt among Polo, Reebok, Adidas, Gap, Milan and Lava of six different colors among Red, Blue, Green, White, Pink and Black not necessarily in the same order. C wears a red color shirt which is neither Polo nor Lava. A wears Reebok shirt which is neither black nor pink in color. Either E or F wears white shirt. B wears Gap shirt which is not pink in color. D wears either Adidas or blue shirt. E wears blue shirt which is not Lava. Of which brand is F's shirt ?
- (1) Lava
  (2) Polo
  (3) Adidas
  (4) Milan
  72. A Figure (X) is given, followed by four complex figures in such a way that Figure is embedded in
  - one of them. Choose that one.



**73.** Some statements are given and these statements are followed by some conclusions. You have to take the given statements to be true even if they seem to be at variance from commonly known facts. Read the conclusions and then decide which of the given conclusions logically follows from given statements, disregarding commonly known facts.

#### Statements:

Some pearls are stones.

Some stones are diamonds

No diamond is a gem

#### **Conclusions:**

I. Some gems are pearls.

- III. No gem is a diamond.
- (1) Only I and II follow
- (3) Only III and either I or IV follow
- II. Some gems are diamonds.
- IV. No gem is a pearl.
- (2) Only III and IV follow
- (4) Only either I or IV and either II or III follow

	ALLENTEX			CLASS-X
74.	Introducing Reena,	Monika said, "She is th	e only daughter of my	father's only daughter." How is
	Monika related to R	leena?	5 6 5	<i>y c</i>
	(1) Aunt	(2) Niece	(3) Mother	(4) Sister
75.	Count the number of	of triangles and squares	in the given figure.	
			$\sim$	
		$\boxtimes$		
	(1) 36 triangles, 7 s	quares	(2) 38 triangles, 9	squares
	(3) 40 triangles, 7 s	quares	(4) 42 triangles, 9	squares
76.	If, A + B means A	is the mother of B;		
	A / B means A i	s the brother of B;		
	$A \times B$ means A	is the son of B and		
	A – B means A	is the daughter of B.		
	Which of the follow	ving means C is the niec	e of D?	
	(1) D – P / C	(2) $D \times P - C$	(3) C – P / D	(4) $P + D / C$
77.	What day of the we	ek was on 25th Novemb	per 1959 ?	
	(1) Saturday	(2) Wednesday	(3) Friday	(4) Monday
78.	One evening before	sunset two friends Sum	it and Mohit were tall	king to each other face to face. If
	Mohit's shadow was	s exactly to his right sid	le, which direction was	s Sumit facing ?
	(1) North	(2) South	(3) West	(4) Data inadequate
79.	Find the missing ter	m.		
	11 7 49			
	12 8 54			
	$12 \ 0 \ 34$			
	13 4 !			
	(1) 60	(2) 45	(3) 0	(4) 15
80.	A word is represent	ed by only one set of n	umber as given in any	one of the alternatives. The sets

of numbers given in the alternative are represented by two classes of alphabets as in the 2 matrices given below. The columns and rows of Matrix I are numbered from 0 to 4 and that of Matrix II from 5 to 9. A letter from these matrices can be represented first by its row and next by column number. For eg. 'B' can be represented by 11, 30 etc. 'U' can be represented by 58, 89 etc.

MATRIX I											
	0	1	2	3	4						
0	М	L	F	Н	В						
1	Н	В	М	L	F						
2	L	F	Н	H B							
3	В	М	L	F	Η						
4	F	Н	В	Μ	L						

Identify the set for the word FISH.

(1) 22, 81, 14, 69

(3) 33, 88, 67, 22

MATRIX II										
	5 6 7 8 9									
5	L	Κ	S	U	Ν					
6	U	Ν	Ι	Κ	S					
7	Κ	S	U	Ν	Ι					
8	Ν	Ι	Κ	S	U					
9	S	U	Ν	Ι	Κ					

(2) 33, 86, 88, 41 (4) 02, 67, 34, 88

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TALLENTEX ALLEN'S Talent Encouragement Exam

ANSWER KEY															
Que.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Ans.	3	4	3	3	2	4	2	4	3	1	2	2	3	3	4
Que.	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
Ans.	4	1	3	4	3	2	2	3	1	3	3	2	4	4	2
Que.	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45
Ans.	4	3	2	2	1	4	2	4	1	3	1	2	3	1	2
Que.	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
Ans.	2	3	1	2	1	3	3	2	3	2	4	1	3	4	2
Que.	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75
Ans.	2	3	2	1	1	1	2	1	4	4	1	4	3	3	3
Que.	76	77	78	79	80				-						
Ans.	3	2	2	3	2										