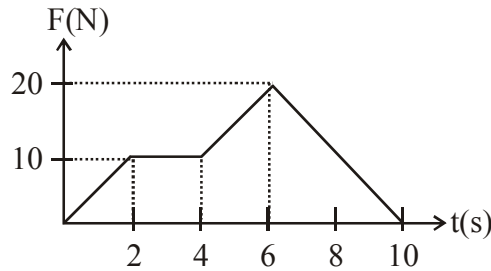


**SECTION - A : PHYSICS**

This section contains **30 Multiple Choice Questions**. Each question has four choices (1), (2), (3) and (4) out of which **ONLY ONE** is correct.

1. The frequency of a wave travelling at a speed of 500 m/s is 25 Hz. Its time period will be \_\_\_\_\_.  
 (1) 20 s                      (2) 25 s                      (3) 0.05 s                      (4) 0.04 s
2. Which of the following statements is correct regarding the propagation of light of different colours of white light in air?  
 (1) Red light moves fastest  
 (2) Blue light moves faster than green light  
 (3) All the colours of the white light move with the same speed  
 (4) Yellow light moves with the mean speed as that of the red and the violet light
3. A body is dropped from the roof of a multi storied building it passes the ceiling of the 20<sup>th</sup> storey at a speed of 20 m/sec if the height of each storey is 5m, then the number of storeys in the building .  
 (1) 24                      (2) 20                      (3) 25                      (4) 30
4. Monochromatic light of frequency  $5 \times 10^{14}$  Hz travelling in a vacuum enters a medium of refractive index 1.5. Its wavelength in the medium is  
 (1) 5000 Å                      (2) 4000 Å                      (3) 5500 Å                      (4) 6000 Å
5. A force of 5 N acts on a body of weight 10 N, then the acceleration produced by it is (take  $g = 10 \text{ m/s}^2$ ):  
 (1)  $2 \text{ m/s}^2$                       (2)  $5 \text{ m/s}^2$                       (3)  $0.5 \text{ m/s}^2$                       (4)  $50 \text{ m/s}^2$
6. Rekha placed a juice bottle at a distance of 20 cm in front of a convex mirror which has focal length of 20 cm. Where is the image likely to form ?  
 (1) At a distance of 10 cm in front of the mirror  
 (2) At focus in front of the mirror  
 (3) At a distance of 10 cm behind the mirror  
 (4) At focus behind the mirror
7. A rod of length 10 cm lies along the principal axis of a concave mirror of focal length 10 cm in such a way that the end closer to the pole is 20 cm away from it. Find the length of the image.  
 (1) 2 cm                      (2) 4 cm                      (3) 5 cm                      (4) 6 cm
8. The lateral displacement of an incident ray passing out of a rectangular glass slab, for the same angle of incidence  
 (1) is directly proportional to the thickness of the glass slab.  
 (2) is inversely proportional to the thickness of the glass slab.  
 (3) is independent of the thickness of the glass slab.  
 (4) none of the above options is correct.
9. Which of the following is not a unit of work :  
 (1) newton  $\times$  metre                      (2) joule  
 (3)  $\frac{\text{kilogram} \times (\text{metre})^2}{(\text{second})^3}$                       (4)  $\frac{\text{kilogram} \times (\text{metre})^2}{(\text{second})^2}$
10. An object placed 45 cm from a lens forms an image on a screen placed 90 cm on the other side of the lens. What is its focal length?  
 (1) 20 cm                      (2) 30 cm                      (3) 40 cm                      (4) 60 cm
11. The time required by a geo-stationary satellite to revolve once around the Earth is:  
 (1) 24 hours                      (2) 84 minutes                      (3) 365 days                      (4) 12 hours

12. A particle of mass 5 kg is at rest initially. A force acts on it whose magnitude changes with time. The force time graph is shown below. The velocity of the particle after 10 sec is



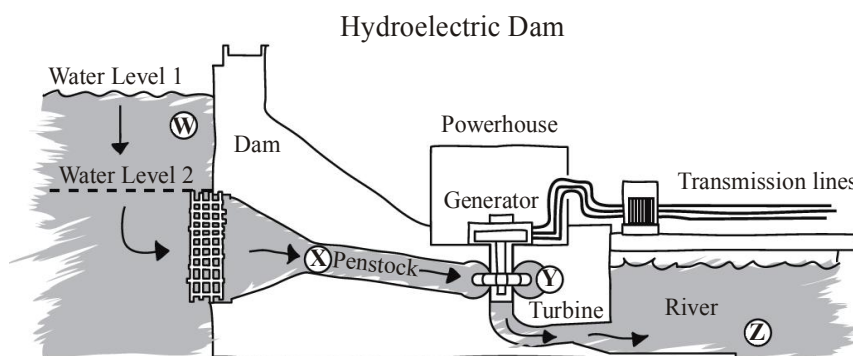
- (1) 100 m/s                      (2) 80 m/s                      (3) 20 m/s                      (4) 60 m/s
13. A man of length  $h$  requires a mirror, to see his own complete image of length at least equal to

- (1)  $\frac{h}{4}$                       (2)  $\frac{h}{3}$                       (3)  $\frac{h}{2}$                       (4)  $h$

14. Assertion (A): Plane mirror forms virtual & erect image of real object.

Reason (R): Rays appear to diverge from a point behind the mirror.

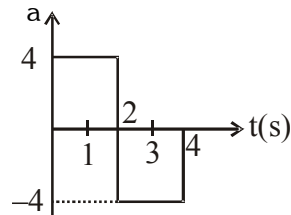
- (1) Both A and R are true and R is the correct explanation of A.  
 (2) Both A and R are true and R is NOT the correct explanation of A.  
 (3) A is true but R is false.  
 (4) A is false but R is true.
15. A student drew the diagram below to show the movement of water through a hydroelectric dam.



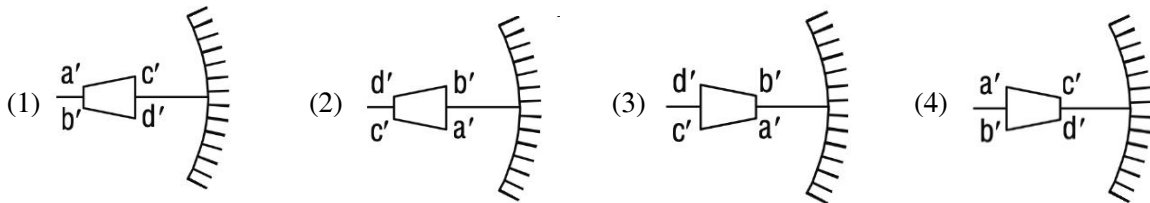
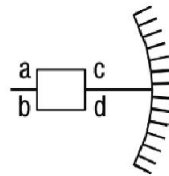
The student used the diagram to describe changes in the potential and kinetic energy of the water. At which location is the gravitational potential energy of the water the greatest?

- (1) Location W                      (2) Location X  
 (3) Location Y                      (4) Location Z

16. Elastic waves in solids are  
 (1) Only transverse (2) Only longitudinal  
 (3) Neither transverse nor longitudinal (4) Either transverse or longitudinal
17. As an object is moved from a distant location toward the center of curvature of a concave mirror, its image  
 (1) remains virtual and becomes smaller (2) remains virtual and becomes larger  
 (3) remains real and becomes smaller (4) remains real and becomes larger
18. A particle starts from rest at  $t = 0$  and moves in a straight line with an acceleration as shown in the figure. The velocity of the particle at  $t = 3$  sec is



- (1) 2 m/s (2) 4 m/s (3) 6 m/s (4) 8 m/s
19. An object is placed in front of a concave mirror of focal length 'f' as shown in figure. Choose the correct shape of image (object is placed beyond center of curvature of the concave mirror).

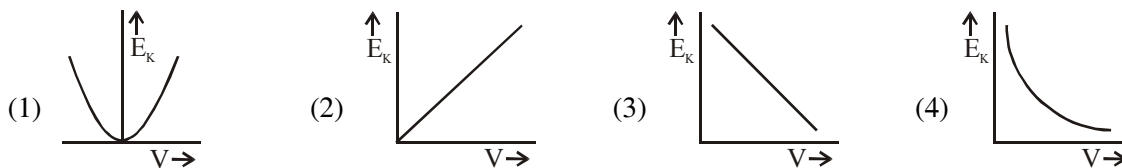


20. **Statement - I :** When a clay ball of mass  $m$  hits normally a wall with speed  $v$  and sticks to it, impulse imparted to the ball is  $2mv$ .  
**Statement - II :** Impulse is equal to rate of change of linear momentum with time.  
 (1) Both statements are true  
 (2) Both statements are false  
 (3) Statement - I is true and statement - II is false.  
 (4) Statement - I is false and statement - II is true.
21. An object is placed 15 cm from a concave mirror of radius of curvature 60 cm. Magnification produced is \_\_\_\_\_.  
 (1) 2 (2) 1 (3) 3 (4) 4
22. An object is placed at a distance  $2f$  from the pole of a convex mirror of focal length  $f$ . The linear magnification is:  
 (1)  $1/3$  (2)  $3/1$  (3)  $1/4$  (4)  $1/2$
23. Least distance of distinct vision of a long-sighted man is 40 cm. He wish to reduce it to 25 cm by using a lens the focal length of the lens is-  
 (1)  $+\frac{200}{3}$  cm (2)  $-\frac{200}{3}$  cm (3) +200 cm (4) -200 cm



**Sample Test Paper : CLASS-X**

24. For a particle graph between its kinetic energy  $E_K$  and its velocity  $V$  is



25. An object is placed at 20 cm from a convex mirror of focal length 10 cm. The image formed by the mirror is

- (1) Real and at 20 cm from the mirror
- (2) Virtual and at 20 cm from the mirror
- (3) Virtual and at  $20/3$  cm from the mirror
- (4) Real and at  $20/3$  cm from the mirror

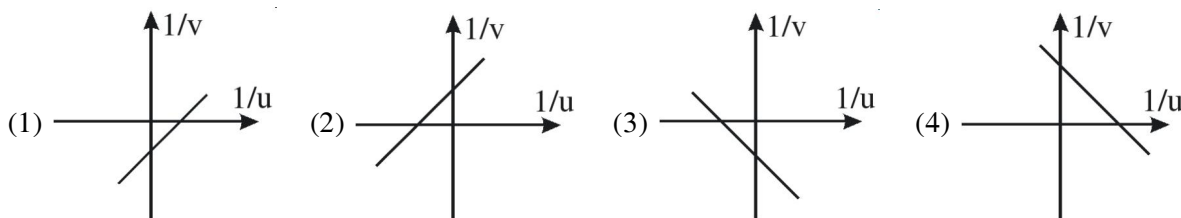
26. The mass of the moon is 1% of mass of the earth. The ratio of gravitational pull of earth on moon to that of moon on earth will be

- (1) 1 : 1
- (2) 1 : 10
- (3) 1 : 1000
- (4) 2 : 1

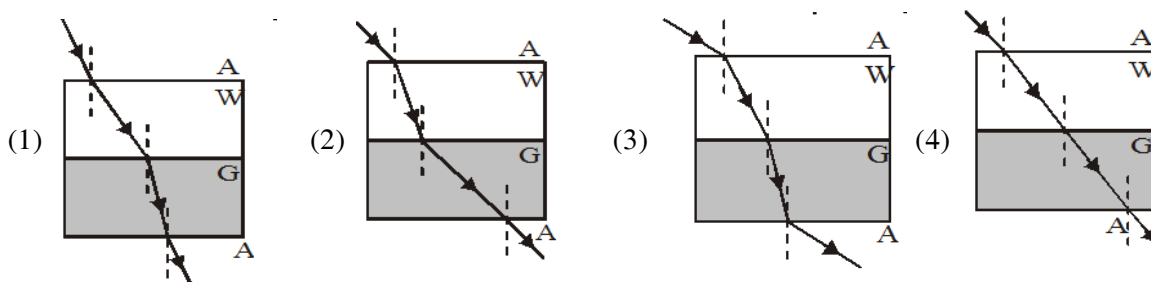
27. Can an object having constant mass maintain uniform velocity when net force acting on it is not zero?

- (1) no, impossible
- (2) yes, but only if the force is in the direction of the velocity.
- (3) yes, but only if the force is opposite to the direction of the velocity.
- (4) yes, if the force is perpendicular to the velocity.

28. Which of the following is a correct graph of relation between  $u$ ,  $v$  &  $f$  (where  $u$ ,  $v$ ,  $f$  have standard meaning) for a concave mirror.



29. A ray of light passes through air into a section of water, then into a glass slab and finally emerges out in air. Which of the following diagrams correctly represent the path of light ray through this combination ?



30. If K.E. body is increased by 100%. Then % change in its momentum is

- (1) 50%
- (2) 41.4%
- (3) 10%
- (4) 20%

**SECTION-B : CHEMISTRY**

This section contains **30 Multiple Choice Questions**. Each question has four choices (1), (2), (3) and (4) out of which **ONLY ONE** is correct.

31. A hydrocarbon has 3 gram carbon per gram of hydrogen, hence its simplest formula will be  
 (1)  $\text{CH}_4$  (2)  $\text{C}_6\text{H}_6$  (3)  $\text{C}_3\text{H}_8$  (4)  $\text{CH}_2$
32. The schematic atomic structures of three elements X, Y and Z are given as



Which of the following statements is/are incorrect?

- (I) Z can form  $\text{ZCl}_3$  and  $\text{ZCl}_5$ .  
 (II) Y can exist in triatomic form.  
 (III) X and Y combine to form  $\text{X}_3\text{Y}$ .  
 (IV) X and Z combine to form  $\text{X}_3\text{Z}$ .  
 (V) X will gain one electron to form a stable compound.  
 (VI) X and Y combine to form  $\text{X}_2\text{Y}_2\text{Z}$  and Y combine to form  $\text{Y}_3\text{Z}_2$ .
- (1) I, II, IV, V                      (2) I, II, III, IV, V                      (3) I, III, IV, V, VI                      (4) I, II, V, VI
33. Which of the following is the formula of barium peroxide and barium oxide respectively ?  
 (1)  $\text{Ba}_2\text{O}$ ,  $\text{Ba}_2\text{O}_2$                       (2)  $\text{Ba}_2\text{O}_2$ ,  $\text{Ba}_2\text{O}$                       (3)  $\text{BaO}_2$ ,  $\text{BaO}$                       (4)  $\text{BaO}_3$ ,  $\text{BaO}$
34. How many litres of water has evaporated on concentrating 10 litres of  $\text{H}_2\text{SO}_4$  such that its pH decreases from 6 to 5 ?  
 (1) 9                      (2) 7                      (3) 5                      (4) 10
35. Which one of the following contains the smallest number of molecules?  
 (1) 8 g of methane                      (2) 0.75 mole of carbon dioxide  
 (3) 4g of oxygen                      (4) 64 g of sulphur dioxide
36. Alkali metals cannot be prepared by the simple reduction of their oxides. Why ?  
 (1) The alkali metals are the strongest reducing agents  
 (2) The alkali metals are large in size  
 (3) The alkali metals have high electronegativity  
 (4) The alkali metals have only one valence electron
37. A water soluble compound 'XOY' on reaction with Zn, liberates hydrogen gas. It is also used in soap industry and paper making. Identify the compound.  
 (1)  $\text{NaOH}$                       (2)  $\text{Ca(OH)}_2$                       (3)  $\text{CaOCl}_2$                       (4)  $\text{NaHCO}_3$
38. An element X has electronic configuration 2, 8, 1 and another element Y has electronic configuration 2, 8, 7. They form a compound Z. The property that is not exhibited by Z is :  
 (1) It has high melting point.  
 (2) It is a good conductor of electricity in its pure solid state.  
 (3) It breaks into pieces when beaten with hammer.  
 (4) It is soluble in polar solvent.

39. A brief information about two atoms X and Y are given:  
 X: Atomic number = 7, Mass number = 14  
 Y: Atomic number = 7, Mass number = 15  
 Which of the following is correct about these two atoms?  
 (1) Electronic configuration of X is 2, 8, 4 while that of Y is 2, 8, 5.  
 (2) Both X and Y contain 7 neutrons.  
 (3) X has 2 electron shells while Y has 3 electron shells.  
 (4) Both X and Y have 5 valence electrons.
40. Neutron was discovered by  
 (1) Rutherford (2) Bohr (3) Chadwick (4) Goldstein
41. Which one of the following metal oxides shows both acidic and basic character ?  
 (1) CuO (2) K<sub>2</sub>O (3) Na<sub>2</sub>O (4) Al<sub>2</sub>O<sub>3</sub>
42. Which of the following statements is **INCORRECT** in accordance with a balanced chemical equation ?  
 (1) It represents the exact number of atoms and molecules taking part in a chemical reaction.  
 (2) It does not tell anything about the speed of reaction.  
 (3) It reveals if any reaction is explosive.  
 (4) None of these.
43. Which of the following reaction is not a precipitation reaction ?  
 (1)  $\text{AgNO}_3 + \text{NaCl} \longrightarrow \text{AgCl} + \text{NaNO}_3$  (2)  $\text{Pb}(\text{NO}_3)_2 + 2\text{KI} \longrightarrow \text{PbI}_2 + 2\text{KNO}_3$   
 (3)  $\text{FeCl}_3 + 3\text{NH}_4\text{OH} \longrightarrow \text{Fe}(\text{OH})_3 + 3\text{NH}_4\text{Cl}$  (4)  $2\text{KI} + \text{Cl}_2 \longrightarrow 2\text{KCl} + \text{I}_2$
44. One molecule of an "ic" acid of a non-metal having 5 electrons in valence shell reacts with a molecule of base to form a salt "X." The base corresponds to the metal with one electron in valence shell. If the salt so formed can react with the same base in 1 : 2 ratio, predict the formula of the salt "X".  
 (1) K<sub>2</sub>SO<sub>4</sub> (2) Na<sub>2</sub>HPO<sub>4</sub> (3) KH<sub>2</sub>PO<sub>4</sub> (4) Na<sub>3</sub>PO<sub>4</sub>
45. Take about 1g CaCO<sub>3</sub> in a test tube heat over a flame when a colourless gas comes out of reaction. Which type of reaction is this?  
 (1) Decomposition reaction (2) Displacement reaction  
 (3) Double displacement reaction (4) Combination reaction
46. The total number of molecules in 10 g of Calcium carbonate is  
 (1)  $6.02 \times 10^{23}$  (2)  $6.02 \times 10^{24}$  (3)  $6.02 \times 10^{25}$  (4)  $6.02 \times 10^{22}$
47. The comparison of the particles P,Q,R,S and T is given in the table

Substance	No. of Protons	No. of Neutrons	No. of electrons
P	25	30	25
Q	13	13	13
R	13	14	13
S	9	10	9
T	9	10	10

Identify atoms, ions and isotopes.

	Atoms	ions	Isotopes
(1)	P,Q,R	R,T	S and T
(2)	R, T	P,Q, S	Q and R
(3)	P, Q, R, S	T	Q and R
(4)	Q, R	P, T	S and T

48. What weight of sodium contains the same number of atoms as those in 8 grams of oxygen atom ?  
 (1) 10.5g                      (2) 13.5g                      (3) 11.5g                      (4) 14.2g
49. Plaster of Paris  $\left( \text{CaSO}_4 \cdot \frac{1}{2} \text{H}_2\text{O} \right)$  on mixing with water sets to form  
 (1)  $\text{CaSO}_4 \cdot \text{H}_2\text{O}$                       (2)  $\text{CaSO}_4 \cdot 1\frac{1}{2} \text{H}_2\text{O}$   
 (3)  $\text{CaSO}_4 \cdot 2\text{H}_2\text{O}$                       (4)  $\text{CaSO}_4 \cdot 2\frac{1}{2} \text{H}_2\text{O}$
50. The valency of which one of the following is different from the others?  
 (1) Potassium ion                      (2) Barium ion  
 (3) Lithium ion                      (4) Ammonium ion
51. The metal obtained by self reduction process is  
 (1) Cu                      (2) Zn                      (3) Fe                      (4) Ag
52. Which of the following statements is not correct?  
 (1) A base cannot be prepared by burning of metal in air.  
 (2) Some metal react with acids to give salt and hydrogen.  
 (3) Some non-metal oxides react with water to form an acid.  
 (4) A base can be prepared by heating metal carbonates.
53. The metal used to recover copper from an aqueous solution of copper sulphate is  
 (1) Au                      (2) Ag                      (3) Hg                      (4) Fe
54. Read the given statements and mark the correct option.  
**Statement 1** : Bohr's orbits are called stationary orbits.  
**Statement 2**: Electrons remain stationary in these orbits for some time.  
 (1) Both statements 1 and 2 are true and statement 2 is the correct explanation of statement 1.  
 (2) Both statements 1 and 2 are true but statement 2 is not the correct explanation of statement 1.  
 (3) Statement 1 is true and statement 2 is false.  
 (4) Both statements 1 and 2 are false.
55. Which of the following are isobars?  
 (a)  ${}_1\text{H}^1, {}_1\text{H}^2, {}_1\text{H}^3$                       (b)  ${}_{20}\text{Ca}^{40}, {}_{18}\text{Ar}^{40}$                       (c)  ${}_6\text{C}^{12}, {}_6\text{C}^{13}, {}_6\text{C}^{14}$                       (d)  ${}_1\text{H}^3, {}_2\text{He}^3$   
 (1) (a) and (c)                      (2) (a) and (d)                      (3) (b) and (d)                      (4) (b) and (c)
56. An element E forms an oxide  $\text{E}_2\text{O}$ , which is neither acidic nor basic. What could be E?  
 (1) Metal                      (2) Non-metal  
 (3) Metalloid                      (4) Either metal or non-metal
57. Which of the following is an example of decomposition reaction ?  
 (1) Digestion of food                      (2) Burning of coal  
 (3) Rusting of iron                      (4) Powdering of sugar

58. Copper(II) carbonate on thermal decomposition produces ..... and ..... the colour changes from ..... to ..... :

- (1) CuO, CO<sub>2</sub>, Black, Blue                      (2) CO<sub>2</sub>, Cu<sub>2</sub>O, Green, Black  
(3) Cu<sub>2</sub>O, CO<sub>2</sub>, Black, Blue                      (4) CO<sub>2</sub>, CuO, Green, Black

59. When 42 g of white solid 'X' is heated, 11 g of a gas 'P' and 5 g of gas 'Q' are evolved leaving behind a solid residue 'R' of mass 26 g.

'P' is an acidic gas which turns lime water milky. 'Q' is a neutral gas which condenses into a liquid and turns anhydrous CuSO<sub>4</sub> blue in colour. The aqueous solution of 'R' is alkaline to litmus and gives white precipitate 'S' with BaCl<sub>2</sub> solution.

Compounds 'X' and 'R' respectively are

- (1) Na<sub>2</sub>CO<sub>3</sub> and NaHCO<sub>3</sub>                      (2) NaHCO<sub>3</sub> and Na<sub>2</sub>CO<sub>3</sub>  
(3) K<sub>2</sub>S and K<sub>2</sub>SO<sub>3</sub>                              (4) KHCO<sub>3</sub> and K<sub>2</sub>CO<sub>3</sub>

60. Dissolving sugar in water is an example of

- (1) Redox reaction                              (2) Precipitation reaction  
(3) Displacement reaction                      (4) None of these

### SECTION-C : BIOLOGY

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This section contains **30 Multiple Choice Questions**. Each question has four choices (1), (2), (3) and (4) out of which **ONLY ONE** is correct.

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61. (i) Cerebellum has very convoluted surface in order to provide the additional space for more neurons.  
(ii) The medulla is connected to the spinal cord.  
(iii) Medulla contains cardiac and respiratory centres.

Which of the above statement/s is/are correct?

- (1) All are correct                              (2) Only (i) is correct  
(3) Only (i) and (iii) are correct                      (4) Only (ii) is correct

62. Symptom of diphtheria is

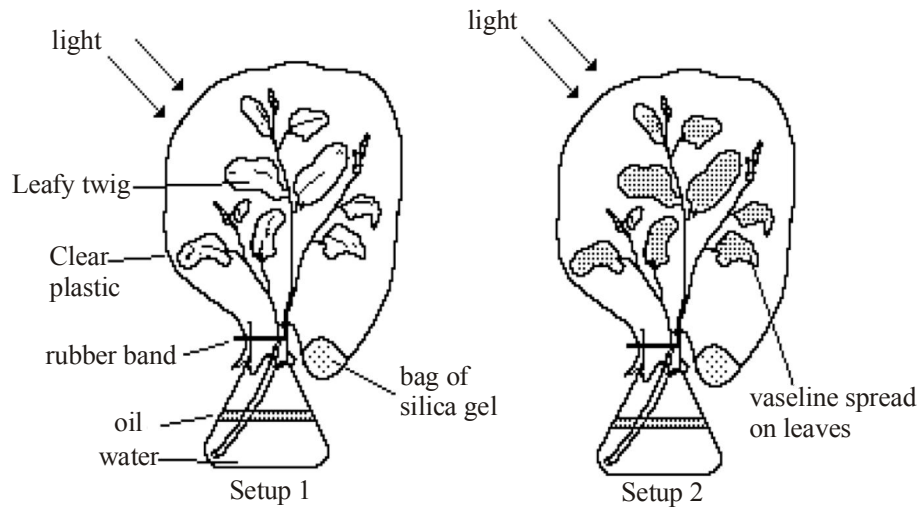
- (1) Suffocation due to blockage of air passage      (2) Hydrophobia  
(3) Limb paralysis                              (4) Gum bleeding

63. Insects have a structure analogous to the mammalian kidney called Malpighian tubules, which remove metabolic nitrogenous wastes from the insect's haemolymph. What sort of nitrogenous waste would the Malpighian tubules be removing?

- (1) C<sub>6</sub>H<sub>12</sub>O<sub>6</sub>                                      (2) Uric acid  
(3) CO<sub>2</sub>    (4) Amino acid



64. In an investigation of factors affecting water loss by plants, the following two experimental setups were prepared, and were left for two hours. Conditions in the setups were similar, except for the factors noted.



Silica gel absorbs water. The silica gel was weighed before and after the two-hour period and the increase in weight was taken.

Comparison of the mass of the silica gel from setups 1 and 2 would help determine if

- (1) gas exchange is necessary for photosynthesis
  - (2) light is necessary for photosynthesis
  - (3) water is lost via the leaves
  - (4) stomatal opening is dependent on the  $\text{CO}_2$  concentration within the leaf
65. You need pears for a large party after three days but they are not ripe enough to use. What is the best way to hasten the ripening process?
- (1) To place the pears in the dark
  - (2) To place the pears in a refrigerator
  - (3) To place the pears on the window sill
  - (4) To place the pears in brown paper bags together with ripe apples
66. Global warming can be controlled by
- (1) Reducing reforestation, increasing the use of fossil fuel
  - (2) Increasing deforestation, slowing down the growth of human population
  - (3) Increasing deforestation, reducing efficiency of energy usage
  - (4) Reducing deforestation, cutting down use of fossil fuel
67. Which of the following options correctly identifies the organism shown in the figure and division it belongs to?

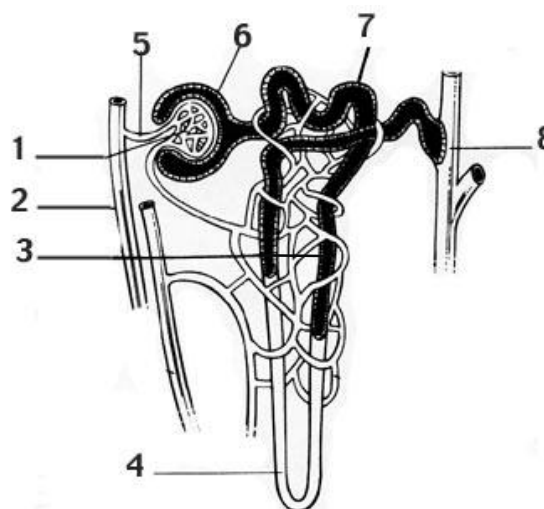


- (1) *Spirogyra* = Thallophyta
- (2) *Funaria* = Bryophyta
- (3) *Sphagnum* = Bryophyta
- (4) *Selaginella* = Pteridophyta



**Sample Test Paper : CLASS-X**

68. Pulmonary artery carries deoxygenated blood from  
 (1) Right ventricle      (2) Right atrium      (3) Left atrium      (4) Left ventricle
69. During inspiration, how does alveolar pressure compare to atmospheric pressure?  
 (1) Alveolar pressure is greater than atmospheric pressure.  
 (2) Alveolar pressure is less than atmospheric pressure.  
 (3) Alveolar pressure is the same as atmospheric pressure.  
 (4) Alveolar pressure is one of the few pressures where the reference pressure is not atmospheric.
70. Identify the mismatch pair  
 (1) AIDS - Bacterial infection      (2) Leprosy - Bacterial infection  
 (3) Malaria - Protozoan infection      (4) Cholera - Bacterial infection
71. Refer to the following diagram and match the column with respect to functions of the various parts.



S. No.	Part	S. No.	Function
i	1	A	Ultrafiltration
ii	2	B	Absorption of water and NaCl
iii	3	C	Brings impure and oxygenated blood
iv	4	D	Collection of urine
v	5	E	increase surface area for filtration
vi	6	F	Nutrient reabsorption
vii	7	G	pass filtrate to loop of Henle
viii	8	H	act as afferent vessel

- (1) i - E, ii - C, iii - G, iv - B, v - A, vi - F, vii - H, viii - D  
 (2) i - E, ii - C, iii - G, iv - B, v - H, vi - A, vii - F, viii - D  
 (3) i - E, ii - C, iii - G, iv - B, v - A, vi - H, vii - F, viii - D  
 (4) i - E, ii - G, iii - C, iv - B, v - A, vi - F, vii - H, viii - D

72. Maximum amount of CO<sub>2</sub> produced by our body is transported  
 (1) as bicarbonates      (2) as carbonates  
 (3) attached to haemoglobin      (4) dissolved in blood plasma

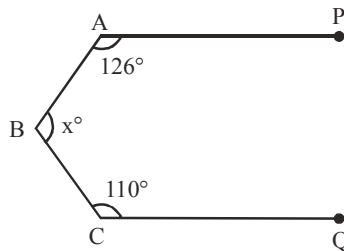
73. Totally submerged aquatic plants can cause a pH change in the surrounding water when they carry out photosynthesis. What pH change happens and what causes it?
- (1) The pH falls because carbon dioxide is absorbed.
  - (2) The pH rises because carbon dioxide is absorbed.
  - (3) The pH falls because oxygen is released.
  - (4) The pH rises because oxygen is released.
74. Which among the following has specialised tissue for conduction of water?
- |                |                  |                    |                  |
|----------------|------------------|--------------------|------------------|
| (i) Thallopyta | (ii) Bryophyta   | (iii) Pteridophyta | (iv) Gymnosperms |
| (1) (i) & (ii) | (2) (ii) & (iii) | (3) (iii) & (iv)   | (4) (i) & (iv)   |
75. The numerous projections on the wall of small intestine function to
- (1) Secrete digestive enzymes
  - (2) Increase the surface area for absorption of digested food
  - (3) Hold products of digestion so they do not enter the large intestine
  - (4) Hold mucus, so ulcers do not form
76. Blood calcium level is a resultant of how much dietary calcium is absorbed, how much calcium is lost in the urine, how much calcium is released from bones into the blood and how much calcium from blood enters tissues. A number of factor play an important role in these processes. Mark the one which has no role.
- |                     |                         |
|---------------------|-------------------------|
| (1) Vitamin D       | (2) Parathyroid hormone |
| (3) Thyrocalcitonin | (4) Thymosin            |
77. A fomite method of transmission of disease is through
- |          |                  |                |         |
|----------|------------------|----------------|---------|
| (1) Food | (2) Door handles | (3) Mosquitoes | (4) Air |
|----------|------------------|----------------|---------|
78. Characteristic feature of malpighian body is that it consists of
- (1) Bowman's capsule only
  - (2) Bowman's capsule and ciliated tubule only
  - (3) Glomerulus and Bowman's capsule
  - (4) Consists of ciliated funnels.
79. The translocation of organic solutes through phloem is bidirectional because
- (1) Root acts as source and leaf acts as sink
  - (2) Source and sink are irreversible in any season
  - (3) Translocation is ATP regulated process
  - (4) Source-sink relationship is variable depending upon season or needs of plant
80. In an axon of a neuron, nerve impulse travels
- |                                 |                   |
|---------------------------------|-------------------|
| (1) Away from cyton             | (2) Towards cyton |
| (3) Both away and towards cyton | (4) Not known     |
81. Which statement describes the flow of matter and energy through the biosphere?
- (1) Energy is passed from producers to consumers and finally back to matter in the soil.
  - (2) Energy follows a one-way path through the biosphere, but matter is recycled and never lost.
  - (3) Matter is passed from producers to consumers, and energy is passed from consumers to producers.
  - (4) Matter comes from the soil and goes into organisms; energy comes from organisms and goes into the soil.

82. Which of the following is not a type of roundworm?  
(1) Tapeworm (2) Hookworm  
(3) Ascaris (4) *Wuchereria bancrofti*
83. Rate of absorption of water by the roots of a plant will be increased when  
(1) Mineral absorption is decreased (2) Photosynthesis is increased  
(3) Rate of transpiration is increased (4) Rate of transpiration is less
84. Respiration involves following steps  
A. Diffusion of gases  $O_2$  and  $CO_2$  across alveolar membrane  
B. Transport of gases by blood  
C. Utilization of  $O_2$  by cell for catabolic reactions and resultant release of  $CO_2$   
D. Pulmonary ventilation by which atmospheric air is drawn in and  $CO_2$  rich air is released out  
E. Diffusion of  $O_2$  and  $CO_2$  between blood and tissues  
The correct sequence of steps is  
(1)  $A \rightarrow B \rightarrow C \rightarrow D \rightarrow E$  (2)  $E \rightarrow D \rightarrow C \rightarrow B \rightarrow A$   
(3)  $D \rightarrow A \rightarrow B \rightarrow E \rightarrow C$  (4)  $C \rightarrow B \rightarrow E \rightarrow A \rightarrow D$
85. What are the proteins that your body produces in response to foreign matter?  
(1) Antigens (2) Allergens  
(3) Antibodies (4) Helper T cells
86. Which of the following sets of animals produce the same substances as their chief excretory product?  
(1) Fish, pigeon and frog (2) Camel, housefly and snake  
(3) Frog, monkey and dog (4) *Amoeba*, ant and dog
87. The usefulness of fermentation as a means of deriving energy is limited because  
(1) it cannot generate enough ATP  
(2) it produces too much  $NH_2$   
(3) the end products are toxic to the producer  
(4) it uses more energy than it produces
88. Limiting factors for the rate of photosynthesis are  
(1) oxygen and water (2) mineral and salt  
(3) light intensity and temperature (4) structure of leaf and stem
89. I. Body is covered by dry and cornified skin, epidermal scales  
II. They have no external ear  
III. Crawling habit  
IV. 3 chambered heart  
The above characters are associated with  
(1) Reptile (2) Bird  
(3) Amphibia (4) Mammals
90. Bile juice can emulsify fats because it contains  
(1) Cholesterol (2) Bile salts  
(3) Bile pigments (4) Enzymes

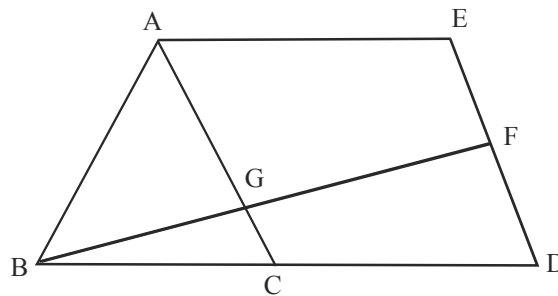
**SECTION-D : MATHEMATICS**

This section contains **30 Multiple Choice Questions**. Each question has four choices (1), (2), (3) and (4) out of which **ONLY ONE** is correct.

91. An octopus has 8 tentacles and 1 head. A jellyfish has 20 tentacles and no head. A cow has 4 legs and 1 head. Farmer Brown has a total of 17 heads, 196 tentacles and 20 legs. So, how many animals does she have  
 (1) 20 (2) 22 (3) 30 (4) None of these
92. A deck of 100 cards is numbered from 1 to 100. Each card has the same number printed on both sides. One side of each card is red and the other side is yellow. Bobby places all the cards, red side up, on a table. He first turns over every card that has a number divisible by 2. He then examines all the cards, and turns over every card that has a number divisible by 3. How many cards have the red side up when Bobby is finished?  
 (1) 83 (2) 49 (3) 66 (4) 50
93. The three steps from solid to point are  
 (1) Solid - surface - line - point (2) Line - point - surface - solid  
 (3) Surface - point - line - solid (4) Point - surface - line - solid
94. Find  $x$  in the following figure

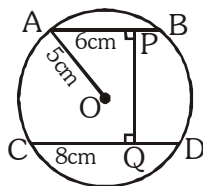


- (1)  $110^\circ$  (2)  $86^\circ$  (3)  $124^\circ$  (4)  $135^\circ$
95. In the given figure (not to scale), ABC is an isosceles triangle in which  $AB = AC$ . AEDC is a parallelogram. If  $\angle CDF = 70^\circ$  and  $\angle BFE = 100^\circ$ , then find  $\angle FBA$ .



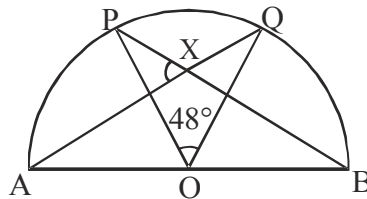
- (1)  $30^\circ$  (2)  $40^\circ$  (3)  $50^\circ$  (4)  $80^\circ$
96. If  $x^2 + y^2 - 2x + 6y + 10 = 0$ , then  $(x^2 + y^2)$  is,  
 (1) 6 (2) 10 (3) 4 (4) 8
97. If  $\sin\theta - \cos\theta = \frac{3}{5}$ , then  $\sin\theta \cos\theta =$   
 (1)  $\frac{16}{25}$  (2)  $\frac{9}{16}$  (3)  $\frac{9}{25}$  (4)  $\frac{8}{25}$

98. An equilateral triangle has side  $2\sqrt{3}$  cm. The radius of its circumcircle will be :  
 (1) 2 cm                      (2)  $\sqrt{3}$  cm                      (3) 3 cm                      (4) 4 cm
99. Samanyu rolls a fair four sided die containing the numbers 1, 2, 3 and 4. Ram rolls a fair six-sided die containing the numbers 1, 2, 3, 4, 5 and 6. What is the probability that Samanyu rolls a larger number than Ram?  
 (1)  $\frac{1}{8}$                       (2)  $\frac{5}{12}$                       (3)  $\frac{3}{5}$                       (4)  $\frac{1}{4}$
100. In a garden, a triangular piece of land has to be planted with grass which cost Rs. 5 per 100 cm<sup>2</sup>. The sides of the triangle are 8m, 6m and 6m. Find the total cost of planting the grass. (Take  $\sqrt{5} = 2.23$ )  
 (1) Rs. 8920                      (2) Rs. 7500                      (3) Rs. 8000                      (4) None of these
101. The length of the longest rod that can be placed in a room which is 12m long, 9m broad and 8m high is  
 (1) 27m                      (2) 19m                      (3) 17m                      (4) 13m
102. Simplify :  $(x + \frac{1}{5})(x + 5)$   
 (1)  $x^2 + 5.2x + 1$                       (2)  $x^2 + x + 1$                       (3)  $x^2 + 5.2x + 25$                       (4)  $x^2 + 1$
103. A flag staff of 6 m height placed on top of tower casts a shadow of  $2\sqrt{3}$  m along the ground find the angles that sun make with ground.  
 (1) 60°                      (2) 30°                      (3) 45°                      (4) 75°
104. Four of the six numbers 1867, 1993, 2019, 2025, 2109 and 2121 have a mean of 2008. What is the mean of the other two numbers.  
 (1) 1994                      (2) 2006                      (3) 2022                      (4) 2051
105. O is the centre of the circle with radius 5 cm. Chords AB and CD are parallel. AB = 6 cm and CD = 8 cm. If PQ is distance between AB and CD, then PQ = :



- (1) 10 cm                      (2) 8 cm                      (3) 7 cm                      (4)  $7\sqrt{2}$  cm
106. A boat can travel with a speed of 13 km/hr in still water. If the speed of the stream is 4 km/hr, find the time taken by the boat to go 68 km downstream.  
 (1) 2 hours                      (2) 3 hours  
 (3) 4 hours                      (4) 5 hours
107. Let m be a natural number ( $1 \leq m \leq 100$ ). For how many values of m,  $4m + 1$  is a perfect square?  
 (1) 10                      (2) 15                      (3) 9                      (4) 8
108. The side faces of pyramid are  
 (1) Triangles                      (2) Squares  
 (3) Polygons                      (4) Rectangles

- 109.** In a  $\Delta ABC$ , P, Q, R are mid points of sides BC, CA and AB respectively. If AC = 16 cm, BC = 20 cm and AB = 20 cm, then the perimeter of  $\square ARPQ$  will be :
- (1) 60 cm (2) 30 cm  
(3) 40 cm (4) None of these
- 110.** In  $\Delta ABC$  if D is a point in BC and divides it in the ratio 3 : 5 then ar ( $\Delta ADC$ ) : ar( $\Delta ABC$ ) =
- (1) 3 : 5 (2) 3 : 8 (3) 5 : 8 (4) 8 : 3
- 111.** If the two zeros of the polynomial  $x^2 - 85x + c = 0$  are prime numbers, what is the value of the sum of the digits of c?
- (1) 12 (2) 13 (3) 14 (4) 15
- 112.** Simplify :  $\frac{2}{3} \operatorname{cosec}^2 58^\circ - \frac{2}{3} \cot 58^\circ \tan 32^\circ - \frac{5}{3} \tan 13^\circ \cdot \tan 37^\circ \cdot \tan 45^\circ \cdot \tan 53^\circ \cdot \tan 77^\circ$
- (1) 1 (2) 2 (3) 0 (4) -1
- 113.** In the given figure, AB is a diameter of the semicircle APQB with center O,  $\angle POQ = 48^\circ$  cuts BP at X, calculate  $\angle AXP$ .



- (1)  $50^\circ$  (2)  $55^\circ$  (3)  $66^\circ$  (4)  $40^\circ$
- 114.** In a certain colony, one-third of the children are intelligent and 20% of the adults are intelligent. It is known that 15% of the population in that colony are children. Find the probability that an intelligent person selected happens to be a child?
- (1)  $\frac{4}{20}$  (2)  $\frac{3}{26}$  (3)  $\frac{9}{40}$  (4)  $\frac{5}{22}$
- 115.** The perimeter of a triangle is 50 cm. One side of a triangle is 4 cm longer than the smaller side and the third side is 6 cm less than twice the smaller side. Find the area of the triangle?
- (1)  $20\sqrt{30}$  cm<sup>2</sup> (2) 20 cm<sup>2</sup> (3) 30 cm<sup>2</sup> (4)  $35\sqrt{30}$  cm<sup>2</sup>
- 116.** The areas of three adjacent faces of a cuboid are  $1\text{m}^2$ ,  $4\text{m}^2$  and  $9\text{m}^2$  then its volume is
- (1)  $36\text{ m}^3$  (2)  $6\text{ m}^3$  (3)  $216\text{ m}^3$  (4) Can't be determined
- 117.** If  $2a + \frac{1}{3a} = 6$ , then the value of the expression  $3a + \frac{1}{2a}$  is,
- (1) 12 (2) 9 (3) 4 (4) 8

118.  $\left( \frac{1}{\sec^2 \theta - \cos^2 \theta} + \frac{1}{\operatorname{cosec}^2 \theta - \sin^2 \theta} \right) \sin^2 \theta \cos^2 \theta =$

(1)  $\frac{1 + \sin^2 \theta \cos^2 \theta}{2 - \sin^2 \theta \cos^2 \theta}$

(2)  $\frac{1 - \sin^2 \theta \cos^2 \theta}{2 - \sin^2 \theta \cos^2 \theta}$

(3)  $\frac{1 + \sin^2 \theta \cos^2 \theta}{2 + \sin^2 \theta \cos^2 \theta}$

(4)  $\frac{1 - \sin^2 \theta \cos^2 \theta}{2 + \sin^2 \theta \cos^2 \theta}$

119. The mean of a set of observation is a. If each observation is multiplied by b and each product is decreased by c, then the mean of new set of observations is\_\_\_\_\_.

(1)  $\frac{a}{b} + c$

(2)  $ab - c$

(3)  $\frac{a}{b} - c$

(4)  $ab + c$

120. Two circles touch each other internally; their radii are 2 cm and 3 cm. The biggest chord of the outer circle which is outside the inner circle is of length.

(1)  $2\sqrt{2}$  cm

(2)  $3\sqrt{2}$  cm

(3)  $2\sqrt{3}$  cm

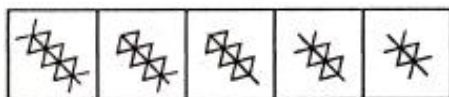
(4)  $4\sqrt{2}$  cm

**SECTION-E : MENTAL ABILITY**

This section contains **40 Multiple Choice Questions**. Each question has four choices (1), (2), (3) and (4) out of which **ONLY ONE** is correct.

121. In the left hand column are given problem figure and in the right hand column the answer figure. Pick up from the answer figure, one which will continue the series.

**Problem Figure**



**Answer Figure**



- (1) (2) (3) (4)

122. How many times are the hands of a clock at right angles in a day ?

(1) 24 times

(2) 48 times

(3) 22 times

(4) 44 times

123. In the following question, an equation becomes incorrect due to the interchange of two signs. One of its four alternatives under it specifies the interchange of signs in the equation, which when put will make the equation correct. Find the correct alternative

$36 - 18 \div 4 + 5 \times 2 = 8$

(1)  $\div$  and  $\times$

(2)  $-$  and  $\div$

(3)  $+$  and  $\div$

(4)  $=$  and  $\times$

124. In a certain code language, if the word LOYALITY is coded as B6 M2 E5 A0 D3 C6 J2 S6, then how will you code the word BOKARO ?

(1) A2 G8 K1 A0 I2 K5

(2) A2 F9 K1 A0 B9 K4

(3) A2 L3 K1 A0 I9 K4

(4) A2 H7 K1 A0 D4 K4

125. The angle between the minute hand and the hour hand of a clock when the time is 7 : 20 is

(1)  $99\frac{1}{2}^\circ$

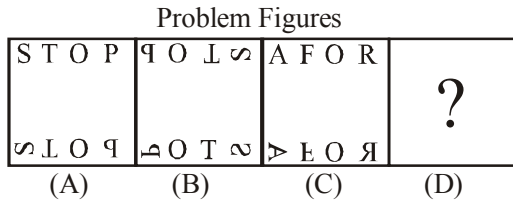
(2)  $100^\circ$

(3)  $135^\circ$

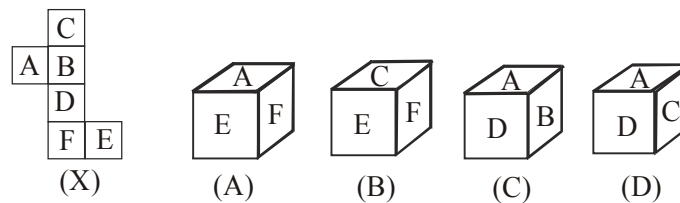
(4)  $132\frac{1}{4}^\circ$



126. In the following question consists of two sets of figures. Figures A, B, C and D constitute the Problem Set while figures 1, 2, 3 and 4 constitute the Answer Set. There is a definite relationship between figures A and B. Establish a similar relationship between figures C and D by selecting a suitable figure from the Answer Set that would replace the question mark (?) in fig. (D).



127. Which form of the dice can be made from the unfolded dice (X).



- (1) A and C only      (2) B and C only      (3) C only      (4) A and D only

128. In the given question, there are statements followed by three conclusions. To take the given statements to be true even if they seem to be at variance from commonly known facts and then decide, which of the given conclusion and logically follows from the given statements.

**Statements :**

- All tables are jugs.
- No jug is rod.
- Some rods are hills.

**Conclusions :**

- I. Some rods are tables.
- II. Some jugs are tables.
- III. Some hills are jugs.

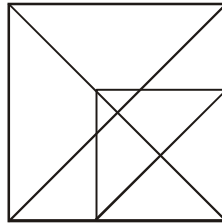
- (1) Only I follows      (2) Only II follows  
 (3) Only III follows      (4) I and II follows

129. Read the following information and answer the question .

- $(X \times Y) \rightarrow X$  is brother of  $Y$ .
- $(X + Y) \rightarrow X$  is daughter of  $Y$ .
- $(X - Y) \rightarrow X$  is husband of  $Y$ .
- If  $(A + B - C)$ , then :

- (1) C is mother of A      (2) C is sister-in-law of A  
 (3) C is aunt of A      (4) C is mother-in-law of A

130. How many triangles are there in the following figure ?



- (1) 15                                      (2) 16                                      (3) 18                                      (4) None of these

131. Introducing a girl, Vipin said, “Her mother is the only daughter of my mother-in-law”. How is Vipin related to the girl ?

- (1) Uncle                                      (2) Father                                      (3) Brother                                      (4) Husband

132. Playback singer Mohammad Rafi died on 31<sup>st</sup> July 1980. What day of the week was it ?

- (1) Tuesday                                      (2) Wednesday                                      (3) Thursday                                      (4) Friday

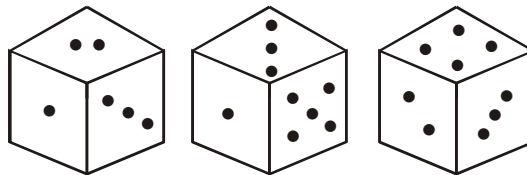
133. Ashish, Bharat, Chandan, Deepak, Esha, Firoz and Gaurav are playing cards sitting in a circle.

- (i) Firoz is 2<sup>nd</sup> to the right of Gaurav.  
 (ii) Bharat is neighbour of Firoz but not of Esha.  
 (iii) Esha, neighbour of Chandan, is 4<sup>th</sup> to the right of Gaurav.  
 (iv) Deepak is between Esha and Ashish.

Who is fourth to the left of Gaurav?

- (1) Deepak                                      (2) Esha                                      (3) Chandan                                      (4) Can't be determined

134. Which number is opposite to face 3 ?

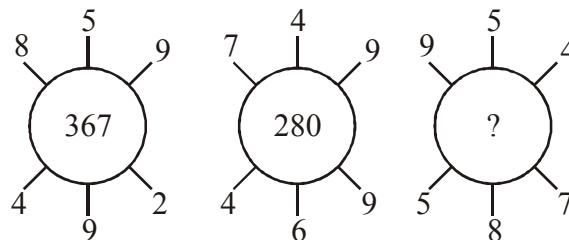


- (1) 1                                      (2) 6                                      (3) 5                                      (4) 4

135. Veronika moved a distance of 90 metres towards the north. She then turned to the left and walking for about 35 metres, turned left again and walked 40 metres. Finally, she turned to the right at an angle of 45°. In which direction was she moving finally?

- (1) North-East                                      (2) North-West                                      (3) South-East                                      (4) South-West

136. Find the missing character



- (1) 789                                      (2) 367                                      (3) 673                                      (4) None of these

137. If DIAMOND is coded as VQYMKLV, how is FEMALE coded

- (1) TUMYNU                                      (2) UVNZOV                                      (3) UVNYNV                                      (4) TVNYNV

138. Study the following information carefully and answer the questions given below it

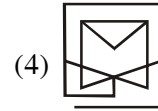
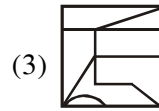
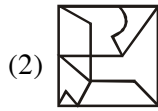
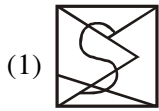
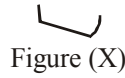
A sales representative plans to visit each of six companies M, N, P, Q, R and S exactly once during the course of one day. She is setting up her schedule for the day according to the following conditions

- (i) She must visit M before N and R.                                      (ii) She must visit N before Q.  
 (iii) The third company she visits must be P.

The sales representative could visit any of the following companies immediately after P except.

- (1) S                                      (2) R                                      (3) Q                                      (4) M

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



140. In the below question, there are statements followed by three conclusions. To take the given statements to be true even if they seem to be at variance from commonly known facts and then decide, which of the given conclusion and logically follows from the given statements.

**Statements :**

- All biscuits are table.
- Some tables are brushes.
- All brushes are colours.

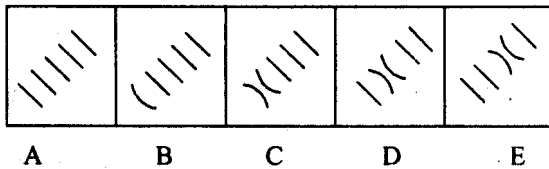
**Conclusions :**

- I. Some colours are biscuits.
- II. Some brushes are biscuits.
- III. Some colours are tables.

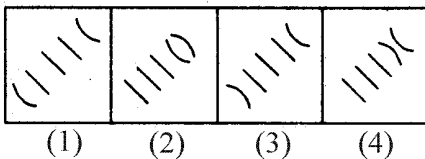
- (1) None follows      (2) Only II follows      (3) Only III follows      (4) I and II follows

141. In the given question five problem figures marked A, B, C and D and E four answer Figures marked 1, 2, 3 and 4. Select a figure from amongst the answer Figures which will continue the series.

**Problem Figures**



**Answer Figures**



142. How many times the hands of a clock at right angle in two days ?

- (1) 22                              (2) 88                              (3) 24                              (4) 48

143. If  $\rightarrow$  stands for 'addition'

$\leftarrow$  stands for 'subtraction'

$\uparrow$  stands for 'division'

$\downarrow$  stands for 'multiplication'

$\square$  stands for 'equal to'

then which of the following alternative is correct

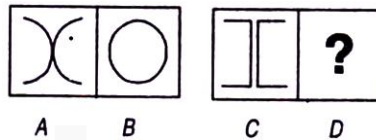
- (1)  $3 \downarrow 6 \uparrow 2 \rightarrow 3 \leftarrow 6 \square 5$                               (2)  $4 \downarrow 8 \leftarrow 5 \rightarrow 10 \square 37$
- (3)  $7 \leftarrow 43 \uparrow 6 \downarrow 1 \square 4$                               (4) None of these

144. How many 7s are immediately followed by 6 as well as immediately preceded by 8  
 5 7 6 8 7 7 6 8 7 8 7 6 5 4 7 8 7 6 8 7 6 4 8 7 6  
 (1) 4 (2) 3 (3) 2 (4) 1

145. At what time between 9 and 10 will the hands of a watch makes an angle of  $22\frac{1}{2}^\circ$  ?

- (1) 10 minutes past 9 (2) 15 minutes past 9  
 (3) 25 minutes past 9 (4) 45 minutes past 9

146. In the following question, there is a same relationship between the figure A and B. The same relationship exists between in the figure C and one of the four answer figure (1), (2), (3) and (4). Choose the correct option.



147. Six different faces of a cube are coloured in three different colours black, green and blue. This cube is now cut into 343 smaller but identical cubes. If N is the number of cubes that is not coloured on any of its faces, then which of the following best describes the value of N?

- (1)  $120 < N < 130$  (2)  $120 < N < 125$   
 (3)  $110 < N < 120$  (4)  $50 < N < 100$

148. In the given question, 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. Give answer.

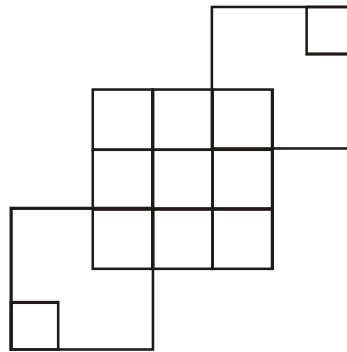
- Statements :**  
**I.** Some bottles are drinks .  
**II.** All drinks are cups .  
**Conclusions :**  
**I.** Some bottles are cups .  
**II.** Some cups are drinks.  
**III.** All drinks are bottles .  
**IV.** All cups are drinks.

- (1) Only I and II follow (2) Only II and III follow  
 (3) Only II and IV follow (4) Only I and IV follow

149. Soni, who is Dubey's daughter, says to Preeti, "Your mother Shyama is the youngest sister of my father, Dubey's Father's son is Prabhat." How is prabhat related to Preeti?

- (1) Uncle (2) Father  
 (3) Grandmother (4) Father-in-law

150. How many squares in the given figure?



- (1) 19                      (2) 20                      (3) 18                      (4) 16

151. Study the information given below and answer the questions following it.

Mohan is son of Arun's father's sister. Prakash is son of Reva, who is the mother of Vikas and grandmother of Arun. Pranab is the father of Neeta and grandfather of Mohan. Reva is wife of Pranab. How is the Mohan related to Reva?

- (1) Grandson              (2) Son                      (3) Nephew              (4) Data inadequate

152. What will the day of the week on 14 July 2013.

- (1) Monday              (2) Wednesday              (3) Saturday              (4) Sunday

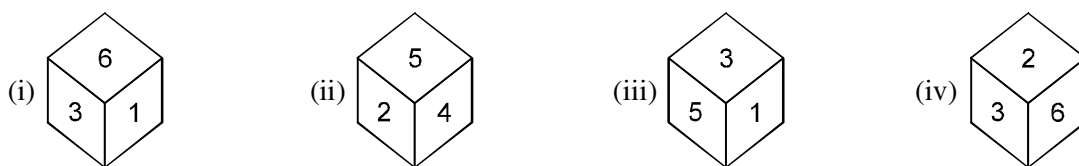
153. **Direction :** Read the following information carefully and answer the question that follow:

A, B, C, D, E and F are seated in a circle facing the centre. D is between F and B. A is second to the left of D and second to the right of E.

Who is facing A

- (1) B                      (2) D                      (3) F                      (4) Either F or B

154. Four position of a dice are given below.



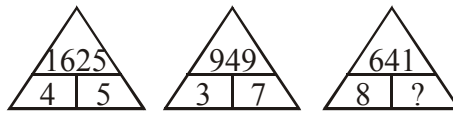
What number is opposite to 3

- (1) 2                      (2) 5                      (3) 4                      (4) 6

155. There is a ring road connecting points A, B, C and D. The road is in a complete circular form but having several approach roads leading to the centre. Exactly in the centre of the ring road there is a tree which is 20 km from point A on the circular road. You have taken a round of the circular road starting from point A and finish at the same point after touching points B, C and D. You then drive 20 km interior towards the tree from point A and from there reach somewhere in between B and C on the ring road. How much distance you have to travel from the tree to reach the point between B and C on the ring road?

- (1) 20km                      (2) 15km                      (3) 80km                      (4) 40km

156. Find the missing character



- (1) 2                                      (2) 3                                      (3) 4                                      (4) 1

157. If 453945 stands for DECIDE. then what will stands for 8978

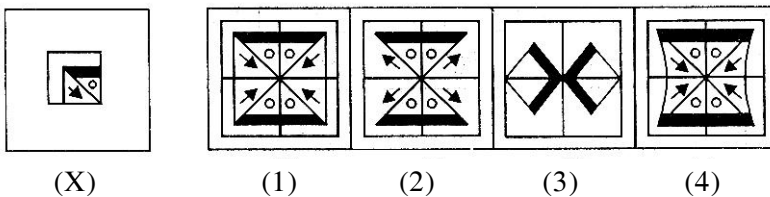
- (1) BHEE                                      (2) CDEH                                      (3) GHEE                                      (4) HIGH

158. Anjali and Laxmi are good in Maths and Athletics. Dimple and Anjali are good in Athletics and Studies. Laxmi and Babita are good in GK and Maths. Dimple, Babita and Eshani are good in studies and GK. Eshani and Dimple are good in studies and Biology.

Who is good in studies, GK, Athletics and Biology?

- (1) Anjali                                      (2) Babita                                      (3) Laxmi                                      (4) Dimple

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



160. In the question, there are statements followed by three conclusions. To take the given statements to be true even if they seem to be at variance from commonly known facts and then decide, which of the given conclusion and logically follows from the given statements.

**Statements :**

- Some pencils are pens.
- All pens are buses.
- Some buses are trucks.

**Conclusions :**

- I. Some trucks are pencils.
- II. Some buses are pencils.
- III. No truck is pencil.

- (1) Only I follows                                      (2) Only II follows  
 (3) Either I or III and II follows                                      (4) Either I or III follows

**ANSWER KEY**

Que.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Ans.	4	3	1	2	2	3	3	1	3	2	1	3	3	1	1
Que.	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
Ans.	4	4	2	3	2	1	1	1	1	3	1	1	4	3	2
Que.	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45
Ans.	1	3	3	1	3	1	1	2	4	3	4	3	4	3	1
Que.	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
Ans.	4	3	3	3	2	1	1	4	3	3	2	1	4	2	4
Que.	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75
Ans.	1	1	2	3	4	4	1	1	2	1	2	1	2	3	2
Que.	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90
Ans.	2	2	1	3	2	2	4	1	4	1	3	1	1	4	3
Que.	91	92	93	94	95	96	97	98	99	100	101	102	103	104	105
Ans.	2	2	1	3	2	2	4	1	4	1	3	1	1	4	3
Que.	106	107	108	109	110	111	112	113	114	115	116	117	118	119	120
Ans.	3	3	1	4	3	2	4	3	4	1	2	2	4	2	4
Que.	121	122	123	124	125	126	127	128	129	130	131	132	133	134	135
Ans.	1	4	2	2	2	1	2	2	1	4	2	3	3	2	4
Que.	136	137	138	139	140	141	142	143	144	145	146	147	148	149	150
Ans.	2	1	4	1	3	4	2	2	1	4	3	1	1	1	3
Que.	151	152	153	154	155	156	157	158	159	160					
Ans.	1	4	4	3	1	4	4	4	1	3					