

SAMPLE PAPER- 2

Verbal & Non Verbal Reasoning

Q1. If '*A*' stands for ' $+$ '; '*B*' stands for ' \div ' ;

'*C*' stands for ' \times ' ; '*D*' denotes ' $-$ '

Then 4 A 6 B 3 C 5 D 4 = ?

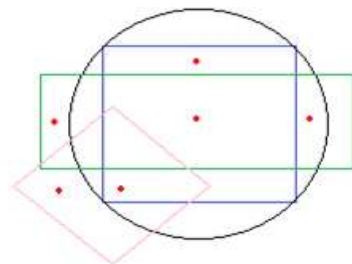
(a) 8

(b) 12

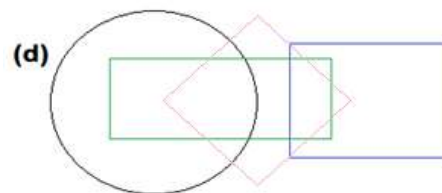
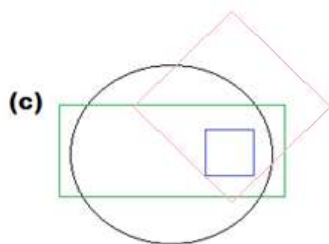
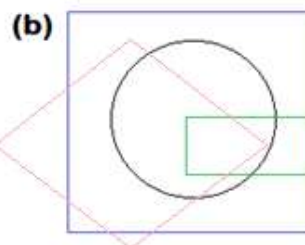
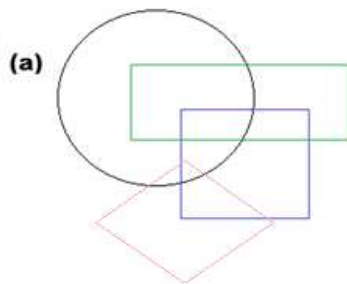
(c) 20

(d) 10

Q2.



Choose the figure from the options which satisfies the same condition of placement of the dots as in the given figure :



Q3. In a certain code '**HANGER**' is written as '**ICQKJX**', then which word would be written as '**LETTER**'

(a) KCQPZL

(b) KCPQZL

(c) KDQPZL

(d) KCQQCL

Q4. Find the missing number, if a certain rule is followed either row-wise or column-wise.

72	?	225
4	3	1
2	1	2
0	5	6

(a) 182

(b) 153

(c) 142

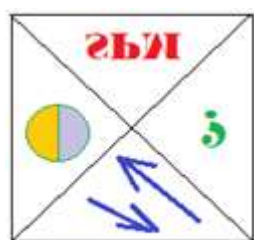
(d) 173

Q5.

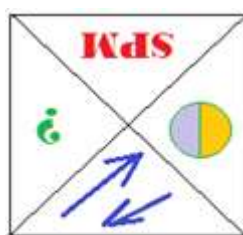


Select the correct Water Image from the figure

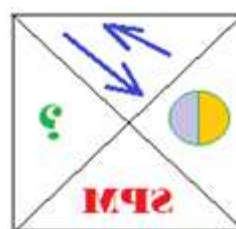




(a)



(b)



(c)



(d)

Case Based Study

Q6. Calculate the weight in gram of NaOH present in 25mL of 0.5 M NaOH solution.

(a) 5 g

(b) 5.5 g

(c) 10.05 g

(d) 8.6 g

Q7. Choose the correct statement regarding the Cell wall of plant cell :

(a) Secondary cell wall is mainly composed of lignin and is deposited on the outer surface of primary wall.

(b) Primary cell wall is chiefly composed of a soluble fibrous polysaccharide called suberin.

(c) The primary cell wall is cellulose in which adjacent cells are cemented through middle lamella of calcium and magnesiumpectate.



(d) Pits are present in primary walls whereas they are absent in secondary walls.

Multiple Choice Question [MCQ]

Q8. Select the correct sentence

- (a) Cardiac muscle has no nucleus and mitochondria
- (b) RBC of mammals does not contain RER and nucleus.
- (c) Nerves are not connected to stomach
- (d) In cell division always the parent cell divides into two cells.

Q9. Which statement is incorrect in context of Tyndall Effect ?

- (a) Scattering and polarizing of light by small suspended particles is



called Tyndall Effect.

(b) Tyndall Effect of colloidal particles is due to dispersion of light.

(c) Tyndall Effect is due to reflection of light

(d) Tyndall effect is due to zigzag motion of suspended particles.

Q10. Smoke is an example of :

(a) Gas dispersed in liquid
in Gas

(b) Solid dispersed

(c) Gas dispersed in Solid
Solid

(d) Solid dispersed in

Q11. Choose the incorrect statement

(a) Size of colloidal particles ranges from 1 -100 nm

(b) Colloidal solution shows Tyndall effect.

(c) Colloids are homogenous mixtures.

(d) Colloidal solution shows Brownian motion.

Q12. Name the cell organelle which plays an important role in detoxifying many toxins and drugs in a cell :

(a) Smooth Endoplasmic Reticulum

(b) Vacuoles

(c) Golgi apparatus

(d) Lysosomes



Q13. Name the cell organelles that liberates heat for the maintenance of constant body temperature in birds and mammals :

(a) Endoplasmic reticulum

(b) Ribosomes

(c) Mitochondria

(d) Lysosomes

Assertion & Reason

The given below Statement in Assertion(A) is followed by a statement of Reason(R) .

Make the correct choice of that :

(a) Assertion(A) and Reason(R) are both True and Reason is the Correct Explanation

(b) Assertion(A) and Reason(R) are both True but the Reason(R) is not the correct explanation.

(c) Assertion(A) is Correct but Reason(R) is not Correct.

(d) Assertion(A) is not Correct but Reason(R) is Correct.

Q14.Assertion :Human Liver cell will swell up when kept in Hypotonic solution.

Reason :Exosmosis is a process in which outward movement of water molecules takes place from inside of lower solute concentration to the outside of higher solute concentration through cellmembrane .



Q15.Assertion:A solution of table salt in a glass of water is homogeneous.

Reason:A solution having different composition throughout is homogeneous.

Achiever's Section

Q16: Two elements X , Y combined when heated to form a new substance XY_3

Equation is : $X_2 + 3Y_2 \rightarrow 2XY_3$

Choose the correct statements about XY_3

- i. XY_3 has a fixed composition.
- ii. XY_3 can be separated into X , Y by physical process.
- iii. XY_3 shows properties of X as well as Y
- iv. XY_3 is a new substance, that does not show any property of X and Y

- (a) (ii) and (iii)
- (b) (i) and (iv)
- (c) (i) and (iii)
- (d) (ii) and (iv)



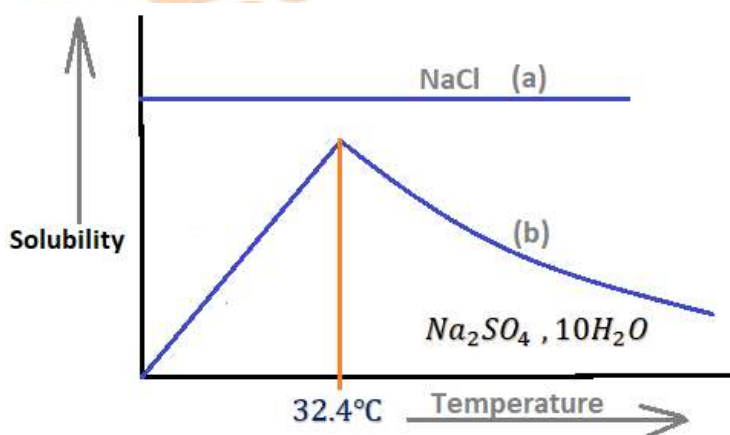
Q17. Name two organelles, having their own genetic material

- (a) Plastid & Mitochondria
(b) Chloroplast & Leucoplast
(c) Golgi Apparatus & Cell Wall
(d) Nucleus & mitochondria

Q18. Calculate the weight of the sodium sulphate required to prepare its 20% solution in 100g of water. ?

- (a) 25 g
(b) 25.5 g
(c) 75.6 g
(d) 35 g

Direction : Read the given passage and observe the graph and answer t Q19 to Q20



Solubility of a Solid in Liquid can vary with increase of Temperature



Graph showing the solubility of NaCl and $Na_2SO_4 \cdot 10H_2O$

Q19. Choose the correct statement for the Solubility of NaCl

- (a) Solubility changes very slightly with changing the temperature.
- (b) Solubility increases very rapidly with increasing the temperature.
- (c) Solubility decreases with increasing temperature.
- (d) Solubility changes very randomly with changing the temperature.

Q20. Choose the correct statement for the Solubility of Na_2SO_4

- (a) Solubility increases with increase of temperature.
- (b) Solubility changes very rapidly with changing the temperature.
- (c) Solubility increases up to a temperature $32.4^\circ C$, later it decreases.
- (d) Solubility decreases with increasing the temperature.

Answer Key

3.(a)	4.(b)	5.(a)	6.(a)	7.(c)	8.(b)	9.(d)	10.(b)	11.(c)	12.(a)	13.(c)
18(a)	19(a)	20(c)								



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