


CBT (SCIENCE) SEPTEMBER 2024

CLASS – 10

Q1 On the basis of their reactive tendency to lose electron and their reactive nature metals are arranged in a series, called as reactivity series of metals. The metals that are placed above hydrogen are called most reactive metals and the metals that are placed below hydrogen are called least reactive metals. The most reactive metals can displace less reactive metals from their salt solutions.

K	Potassium		Most reactive
Na	Sodium		
Ca	Calcium		
Mg	Magnesium		
Al	Aluminium		
Zn	Zinc		
Fe	Iron		
Pb	Lead		
H	Hydrogen		
Cu	Copper		
Hg	Mercury		
Ag	Silver		
Au	Gold		
			Least reactive

Metals which exist in their native state in nature are

- (a) Cu and Au
- (b) Au and Ag
- (c) Zn and Cu
- (d) Cu and Ag

Correct Answer : (b)

Feedback : Gold(Au) and Silver (Ag) are least reactive metals so they exist in native state.

Q2 The method used to extract metals present at the top of the series will be

- (a) Electrolytic Refining
- (b) Calcination
- (c) Electrolytic Reduction
- (d) Roasting

Correct Answer : (c)

Feedback : Due to high affinity with oxygen electrolytic reduction is employed for metals like Na, Mg and Ca

Q3 Four metals P, Q, R and S react with water as given below:

- I. P reacts with cold water
- II. Q reacts with hot water
- III. R reacts with steam
- IV. Red hot S reacts with steam.

Then, highly reactive metal is:

- (a) P
- (b) Q
- (c) R
- (d) S

Correct Answer : (a)

Feedback : Since P reacts with cold water . it is highly reactive

Q4 A cable manufacturing unit tested few elements on the basis of their physical properties

Properties	W	X	Y	Z
Malleable	Yes	No	No	Yes
Ductile	Yes	No	No	Yes
Electrical Conductivity	Yes	Yes	Yes	No
Melting Point	High	Low	Low	High

Which of the above elements were discarded for usage by the company ?

- (a) W,X,Y
- (b) X,Y,Z
- (c) W,X,Z
- (d) None of these

Correct Answer : (b)

Feedback : Based on the table X,Y are not ductile and Z does not conduct electricity.

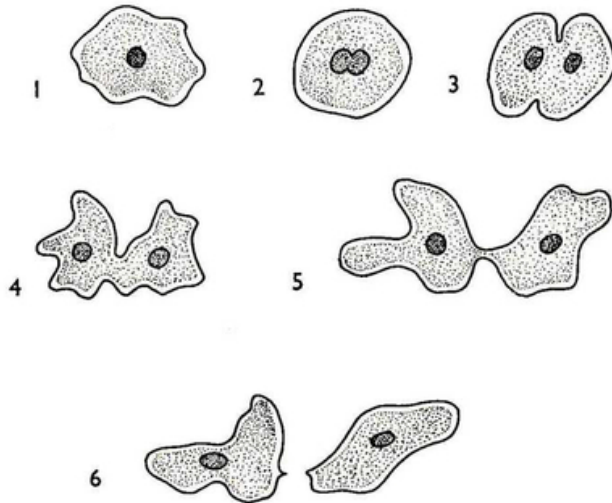
Q5 . Ionic compounds don't conduct electricity in

- (a) solution
- (b) fused state
- (c) solid state
- (d) none of the above

Correct Answer : (c)

Feedback : Ionic compounds do not conduct electricity in solid state as free ions are not available for conduction of electricity.

Q6 Observe the figure given below. Which of the following show cytoplasmic division.

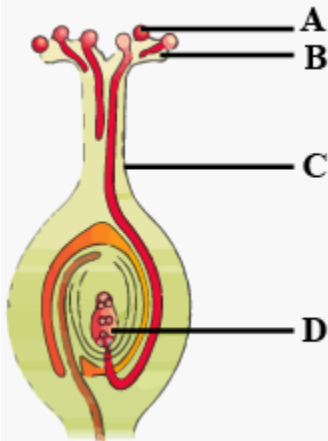


- (a) 1, 2 and 3
- (b) 2, 3 and 4
- (c) 3, 4 and 5
- (d) 4, 5 and 6

Correct Answer : (c)

Feedback : Only 3, 4 and 5 stages show cytoplasmic division

Q7 The diagram shows the process of fertilization in flowering plants. Observe it carefully and answer the questions. Which option gives correct labelling of the diagram?



- (a) A-Stigma , B- Style. C- Ovule. D- Pollen grains
- (b) A- Style , B- Ovule , C- Stigma, D- Pollen grains

- (c) A- Pollen grain, B- Stigma, C- Style, D- Ovule
- (d) A- Ovule, B- Style , C- Pollen grain, D- Stigma

Correct Answer : (c)

Q8 Assertion : Scrotum is present outside the abdominal cavity.

Reason : It store sperms which requires temperature lower than normal body temperature.

- (a) Both (A) and (R) are true but (R) is the correct explanation of (A)
- (b) Both (A) and (R) are true but (R) is not the correct explanation of (A)
- (c) (A) is true but (R) is false.
- (d) (A) is false but (R) is true

Correct Answer : (a)

Q9 In human females an event that reflects onset of reproductive phase is

- (a) Growth of body
- (b) Change in hair pattern
- (c) Change in voice
- (d) Menstruation

Correct Answer : (d)

Feedback : Development of female secondary sexual character marks onset of puberty and initiation of menstrual cycle reflects onset of reproductive phase.

Q10 Which of the following is not a sexually transmitted disease.

- (a) AIDS
- (b) Hepatitis
- (c) Syphilis
- (d) Warts

Correct Answer : (b)

Feedback : Hepatitis is caused by consumption of contaminated water.