CBT CLASS X SCIENCE APRIL (2024)

Q1 A poorly developed zone in the centre of cell that has DNA molecule is called as

(a) Nucleolus of Prokaryotes

(b) Nucleoid of Prokaryotes

(c) Nucleus of Prokaryotes

(d) Nucleus of Eukaryotes

Answer : (b) Nucleoid of Prokaryotes

Feedback : The nucleoid region is a membrane-less region in the prokaryotic cell where most, if not all, of the DNA in the cell is located. The nucleoid is located directly in the cytoplasm, allowing the DNA to be n contact with the cell membrane. The DNA in prokaryotes is circular and is referred to as a plasmid.

Q2 Meristematic tissues in plants are

(a) localised and permanent

(b) not limited to certain region

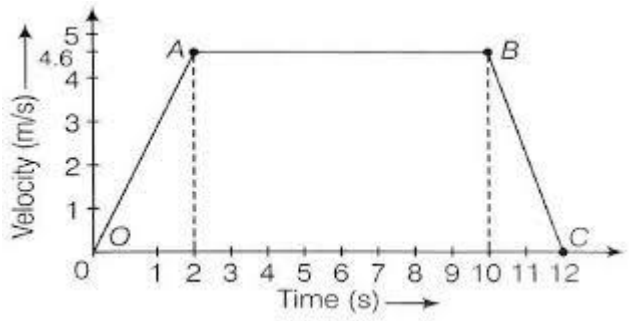
(c) localised and dividing cells

(d) growing in volume

Answer: (c) localised and dividing cells

Feedback : Meristematic tissues consist of actively dividing cells and are present in the growing regions of plants , eg the tips of roots and stems. The cells of meristematic tissue are round, oval , polygonal or rectangular

Q3 Look at the given graph and identify the incorrect statement



(a) body moves with uniform acceleration from O to A

(b) (b) body deccelarates uniformly from B to C

(c) (c) distance covered by the body is the area of figure formed by v-t curve and time axis

(d) (d) body accelerates uniformly from 2s t0 10s

Answer : (d) body accelerates uniformly from 2s t0 10s

Q4 Assertion (A): A hydrogen filled balloon stops rising after it has attained a certain height in the sky.
Reason (R) : The atmospheric pressure increases with height.

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

Answer : (c) (A) is true but (R) is false

Feedback : When the atmospheric pressure becomes equal to the pressure inside the balloon, the balloon stops rising. The atmospheric pressure decreases with height. Hence Assertion is true and Reason is false.

Q5 Different isotopes are matched with their uses as
(i) Co-60 - To treat cancer
(ii) U- 238- To produce electricity
(iii) I-131- To treat goitre
(iv) Na-24- In agricultural research
Which of the above matches are correct?

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

Answer: (c) (i) , (ii) and (iii)

Q6 If 12g of Carbon is burnt in the presence of 32g of Oxygen, how much carbon dioxide will be formed?

(a) 40g carbon dioxide
(b) 44g carbon dioxide
(c) 30g carbon dioxide
(d) 22g carbon dioxide

Answer : (b) 44g carbon dioxide

Q7 The meiotic cell division in plants occurs in

(a) leaves and stem
(b) (b) stem and branches
(c) (c) in anther and ovary
(d) (d) None of the above

Answer : (c) in anther and ovary
Feedback : Meiosis is a type of cell division which takes place in germ cells in plants. Anther and Ovary in plants contains male and female germ cells.

Q8 Parenchyma cells are

(a) relatively unspecified and thin walled

(b) (b) thick walled and specialized
(c) (c) lignified
(d) (d) None of the above

Answer : (a) relatively unspecified and thin walled

Feedback : Parenchyma cells form the bulk of the plant body. The cells are rounded or or isodiametric, relatively unspecified and thin walled. Its cells are living and they posses the power of division.

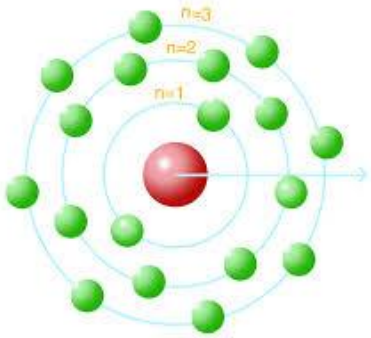
Q9 Assertion(A) : Atomic mass of Aluminium is 27

Reason(R): An atom of Aluminium is 27 times heavier than 1/12th of the mass of carbon-12 atom.

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

Answer : (a) Both (A) and (R) are true and (R) is the correct explanation of (A)

Q10 Identify the element whose Bohr Model is represented by given figure



Argon has 18 electrons and therefore its electronic configuration is 2,8,8. Hence the following figure represents Bohr's model of Argon.

(a) Chlorine
(b) Sodium
(c) Argon
(d) Potassium

Answer : (a) Chlorine

Feedback : Argon has 18 electrons and therefore its electronic configuration is 2,8,8. Hence the following figure represents Bohr's model of Argon.