

Answer the following:-

1. Fungi and plants possess cell wall, but they are placed under two different kingdoms. Why? (1)
2. a) Which physical quantity is having the unit Joule/sec? (1)
b) What is the form of energy possessed by a running car?
3. Write the chemical formula of the following compounds. (1)
a) aluminium chloride b) potassium sulphate
4. An egg sinks in fresh water but floats in highly salty water. Give reason. (1)
5. Give one example of :- (1)
a) diatomic molecule b) polyatomic element
6. The kinetic energy of an object moving with a velocity of 5m/s is 25J. Find the mass of the object . (2)
What will be its kinetic energy when its velocity is doubled.
7. Identify the phylum or division to which the following organisms belong: (2)
a) with peculiar water driven tube system used for moving around
b) known as ‘Amphibians of the plant kingdom’
c) have true body cavity, organ differentiation occurs in a segmented manner.
d) Warm blooded, four chambered heart with pneumatic bones.
8. a) Write the electronic configuration of an atom of aluminium .Also draw a schematic diagram of (2)
its atom showing the distribution of electrons in its shells.
b) Explain the limitation of Rutherford’s model of atom.
9. An iron cube of side 10cm is kept on a horizontal table. If the density of iron is 8000 kg/ m^3 . Find (3)
the pressure on the portion of the table where cube is kept. (Take $g = 10\text{m/s}^2$).
10. Calculate the mass of:- (3)
a) 0.5 moles of N_2 gas b) 3.011×10^{23} number of atoms of N.
11. Mention any three characteristic features of phylum/division to which following organisms belong. (3)



a)



b)

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