



## CLASS 9<sup>TH</sup>

### SHORT TEST - 01

#### GENERAL INSTRUCTION

Maximum Marks = 30 Marks

Maximum Time = 60 minutes

**Syllabus Covered** : Atoms and Molecules, Gravitation, Work Power Energy, Cell : The unit of life

Q.(1) to (3) ,1 marks each –  $3 \times 1 = 3M$

Q.(4) to (7), 3 marks each –  $4 \times 3 = 12M$

Q. (8) to (10), 5 marks each –  $3 \times 5 = 15M$

#### Section – A

1. Which postulate of Dalton's atomic theory is the basis of law of conservation of mass?
2. State the universal law of gravitation.
3. Define the term 'work done'.

#### Section – B

4. State the reason for calling cell membrane as selectively permeable membrane.
5. Describe the role played by lysosomes. Why are these termed as suicide bags ? How do they perform their function ?
6. (a) Give difference between an atom and an ion.  
(b) Give one example each of polyatomic cation and a polyatomic anion.  
(c) Write the chemical formula for the chloride of magnesium.
7. How does the gravitational force between two bodies change if the distance between them is tripled ?

#### Section – C

8. (a) Define the term "energy". Write the names of different forms of energy.  
(b) Define kinetic energy. Derive an expression for the kinetic energy of an object of mass  $m$  moving with a velocity  $v$ .
9. What do you understand by free fall ? Derive an expression for the acceleration due to gravity. Write the factors on which "acceleration due to gravity" depends.
10. How is a prokaryotic cell different from a eukaryotic cell?

-----ALL THE BEST-----