

Second Unit Test in SCIENCE

Std. 9  
01-12-2015

Time : 1 hr.  
M. Marks: 20

**PHYSICS (M. Marks : 07; Time : 20 mts.)**

1. Why is it difficult to hold a school bag having strap made of thin and strong string? (1)
2. State any two differences between density and relative density. (1)
3. A person holds a bundle of hay over his head for 30 minutes and gets tired. Has he done some work or not? Justify your answer. (1)
4. What is kinetic energy? Also find the work done to increase the velocity of a car from 30 km/h to 60 km/h if the mass of the car is 1500 kg. (2)
5. Define 1 joule. Also calculate the pressure when a force of 200 newton acts on an area of  $10 \text{ m}^2$ . (2)

**CHEMISTRY (M. Marks : 07; Time : 20 mts.)**

1. Which postulate of Dalton's atomic theory can explain: (1)
  - a) The law of definite proportion.
  - b) The law of Conservation of mass.
2. Write the chemical formula of the given compounds: (1)
  - a) Calcium Nitrate
  - b) Ferric hydroxide.
3. Write the name of the given compounds: (1)
  - a)  $\text{Na}_2\text{S}$
  - b)  $\text{MgCO}_3$
4.
  - a) What are polyatomic ion? Give an example. (1)
  - b) Hydrogen and Oxygen combine in the ratio of 1:8 by mass to form water. What mass of oxygen gas would be required to react completely with 4g of hydrogen gas?
5.
  - a) What name is given to positively charged ions? (1)
  - b) Give an example of diatomic molecule.
  - c) What is the value of one atomic mass unit?
  - d) Define Valency.
6. Find out the formula unit mass of the following: (2)
  - a)  $\text{Al}_2(\text{SO}_4)_3$
  - b)  $\text{Na}_3\text{PO}_4$(Atomic number: Al - 27, S - 32, O - 16, Na - 23, P - 31)

**BIOLOGY (M. Marks : 06; Time : 20 mts.)**

1. Name the mutually dependent relationship between algae and fungi. ( $\frac{1}{2}$ )
2. Draw a diagram of Amoeba and label any two parts. ( $\frac{1}{2}$ )
3. Who proposed the five kingdom classification? In which kingdom would you place organisms not having both a defined nucleus and multicellular designs? (1)

4. Which division among plants do not have well differentiated body? Give one example.

(1)

5. Differentiate between the following by giving **two points** of difference :-

a) Gymnosperms and Angiosperms.

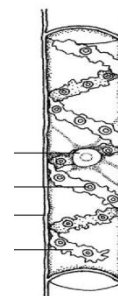
(1)

b) Monocot and Dicot.

(1)

6. Label the marked areas in the given diagram of spirogyra :-

(1)



-X-X-X-X-X-