



## Standard 9

## SCIENCE

Time: 1.30 Hrs.

Marks: 50

## I. Choose the correct answer:

8×1=8

- 1) In current electricity, a positive charge refers to,
  - a) presence of electron
  - b) presence of proton
  - c) absence of electron
  - d) absence of proton
- 2) Which of the following converts electrical energy into mechanical energy?
  - a) Motor
  - b) Battery
  - c) Generator
  - d) Switch
- 3) Number of valence electrons in carbon is
  - a) 2
  - b) 4
  - c) 3
  - d) 5
- 4) Elements with stable electronic configurations have eight electrons in their valence shell. They are \_\_\_\_\_.
  - a) halogens
  - b) metals
  - c) noble gases
  - d) non metals
- 5) Stomach of human beings mainly digests \_\_\_\_\_.
  - a) Carbohydrates
  - b) Proteins
  - c) Fat
  - d) Sucrose
- 6) Acids turn blue litmus paper to \_\_\_\_\_.
  - a) green
  - b) red
  - c) orange
- 7) The structural and functional unit of the kidney is
  - a) villi
  - b) liver
  - c) nephron
  - d) ureter
- 8) The nutrient required in trace amount to accomplish various body function is
  - a) carbohydrate
  - b) protein
  - c) vitamin
  - d) fat

## II. Answer any 6 questions:

6×2=12

## [Question No. 10 is compulsory]

- 9) Define electric current and give its unit.
- 10) If 25C of charge is determined to pass through a wire of any cross section in 50s, what is the measure of current?
- 11) State Fleming's Left Hand Rule.
- 12) Write a note on different types of bonds.
- 13) Write any four uses of acids.
- 14) Define aquaregia.
- 15) Mention any two vital functions of human kidney.
- 16) What is an adulterant?

## III. Answer any 4 questions:

4×4=16

## [Question No. 19 is compulsory]

- 17) List the safety features while handling electricity.
- 18) Draw and label the diagram of an AC generator.
- 19) Find the oxidation number of the elements in the following compounds.
  - (a) C in  $\text{CO}_2$
  - (b) Mn in  $\text{MnSO}_4$
  - (c) N in  $\text{HNO}_3$

- 20) a) Write any two uses of bases.  
b) Write any two uses of salts.
- 21) Explain the structure of nephron.
- 22) Differentiate:  
a) Kwashiorkor from Marasmus  
b) Macronutrients from Micronutrients

**IV. Answer all questions:**

**2×7=14**

- 23) a) Name any two appliances which work under the principle of heating effect of current.  
b) Explain two types of transformer.

**(OR)**

List down the differences between Ionic and covalent compounds.

- 24) Describe the alimentary canal of man.

**(OR)**

How are vitamins useful to us? Tabulate the sources, deficiency diseases and symptoms of fat soluble vitamins.

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