



22-11-2023

Standard 9
SCIENCE

Time: 1.30 Hours

Marks: 50

I. Choose the correct answer:**10×1=10**

- 1) Potential near a charge is the measure of its to bring a positive charge at that point.
 - a) force
 - b) ability
 - c) tendency
 - d) work
- 2) Heating effect of current is called,
 - a) Joule heating
 - b) Coulomb heating
 - c) Voltage heating
 - d) Ampere heating
- 3) Which of the following converts electrical energy into mechanical energy?
 - a) Motor
 - b) Battery
 - c) Generator
 - d) Switch
- 4) The unit of magnetic flux density is
 - a) Weber
 - b) Weber/metre
 - c) Weber/meter²
 - d) Weber - meter²
- 5) compounds have high melting and boiling points.
 - a) Covalent
 - b) Coordinate
 - c) Ionic
- 6) Elements with stable electronic configurations have eight electrons in their valence shell. They are
 - a) halogens
 - b) metals
 - c) noble gases
 - d) non metals
- 7) Which of the following is not a salivary gland?
 - a) sublingual
 - b) Lachrymal
 - c) Submaxillary
 - d) Parotid
- 8) The structural and functional unit of the kidney is
 - a) Villi
 - b) liver
 - c) nephron
 - d) ureter
- 9) The physician who discovered that scurvy can be cured by ingestion of citrus fruit is
 - a) James Lind
 - b) Louis pasteur
 - c) Charles Darwin
 - d) Isaac Newton
- 10) Food and Adulteration Act was enforced by Government of India in the year
 - a) 1964
 - b) 1954
 - c) 1950
 - d) 1963

II. Answer any seven questions:**7×2=14****(Question No: 20 compulsory)**

- 11) Define electric field.
- 12) State Fleming's Left Hand Rule.
- 13) Correct the wrong statements.
 - a) Ionic compounds dissolve in non polar solvents.
 - b) Covalent compounds conduct electricity in molten or solution state.
- 14) Complete the table given below.

Element	Atomic number	Electron distribution	Valence Electrons	Lewis dot structure
Lithium	3			
Boron	5			

- 15) Why do we sweat?
- 16) Mention any two vital functions of human kidney

- 17) Differentiate the following
Diphyodont and Heterodont
- 18) **Match**
- | | | |
|--------------|---|---------------------|
| 1) Calcium | - | a) Muscular fatigue |
| 2) Sodium | - | b) Anemia |
| 3) Potassium | - | c) Osteoporosis |
| 4) Iron | - | d) Goitre |
| 5) Iodine | - | e) Muscular cramps |
- 19) a) Vitamin D is called as vitamin as it can be synthesised by the body from the rays of sunlight.
b) Food should not be purchased beyond the date of
- 20) Calculate the amount of charge that would flow in 2 hours through an element of an electric bulb drawing a current of 2.5 A.

III. Answer any three questions:**3×4=12****(Question No: 25 compulsory)**21) a) **Match**

- | | | |
|-------------------------|---|-----------------------|
| 1) Electric Charge | - | a) Ohm |
| 2) Potential difference | - | b) ampere |
| 3) Electric field | - | c) coulomb |
| 4) Resistance | - | d) newton per coulomb |
| 5) Electric current | - | e) volt. |
- b) List the safety measures while handling electricity.
- 22) a) Define electric current and give its unit.
b) How are the home appliances connected in general, in series or parallel.
Give reasons.
- 23) Name the types of teeth present in an adult human being. Mention the functions of each.
- 24) **Differentiate:**
- | | | |
|-----------------|------|-----------------|
| a) Kwashiorkar | from | Marasmus |
| b) Macnutrients | from | Micro nutrients |
- 25) Explain octet rule with an example.

IV. Answer all the questions:**2×7=14**

- 26) a) Define magnetic flux density.
b) Draw a neat diagram of an AC generator

(OR)

- a) What are the types of bonds?
b) Discuss in brief about the properties of coordinate covalent compounds.
- 27) Explain the structure of nephron

(OR)

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