

Tsi9S

Tenkasi District  
Common Half Yearly Examination - 2024

009212

Standard 9  
SCIENCE  
Part - I



Marks: 75

Time: 3.00 Hours

12x1=12

## I. Choose the correct answer.

- 1) Rulers, measuring tapes and metre scales are used to measure
  - a) mass
  - b) weight
  - c) time
  - d) Length
- 2) In a pressure cooker, the food is cooked faster because
  - a) Increased pressure lowers the boiling point
  - b) Increased pressure raises the boiling point
  - c) decreased pressure raises the boiling point
  - d) Increased pressure lowers the melting point
- 3) Heating effect of current is called
  - a) Joule heating
  - b) Coulomb heating
  - c) Voltage heating
  - d) Ampere heating
- 4) Which of the following converts electrical energy into mechanical energy?
  - a) Motor
  - b) Battery
  - c) Generator
  - d) Switch
- 5) The separation of denser particles from lighter particles done by rotation at high speed is called
  - a) Filtration
  - b) sedimentation
  - c) decantation
  - d) centrifugation
- 6) If Dobereiner is related with law of triads. Then Newland is related with
  - a) Modern Periodic law
  - b) Hund's rule
  - c) Law of octaves
  - d) Paulis Exclusion principle
- 7) Sodium having atomic number 11, is ready to ..... electron/electrons to attain the nearest noble gas electronic configuration
  - a) By gaining one electron
  - b) by gaining two electrons
  - c) By losing one electron
  - d) By losing two electrons
- 8) Acid turn blue litmus paper to .....
  - a) green
  - b) red
  - c) Orange
  - d) white
- 9) Companion cells are closely associated with
  - a) Sieve elements
  - b) Vessel elements
  - c) trichomes
  - d) guard cells
- 10) Chlorophyll in a leaf is required for .....
  - a) Photosynthesis
  - b) tropic movment
  - c) transpiration
  - d) Nastic movment
- 11) Which one of the following substance is not a constituent of sweat?
  - a) Urea
  - b) Protein
  - c) Water
  - d) Salt
- 12) 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) Issac Newton

## Part - II

## II. Answer any 7 of the following questions. (Q.No. 22 is compulsory) 7x2=14

## 13) Match the following:

- |                                  |   |             |
|----------------------------------|---|-------------|
| i) Density                       | - | hpg         |
| ii) Pascals' law                 | - | Milk        |
| iii) pressure exerted by a fluid | - | Mass/Volume |
| iv) Lactometer                   | - | Pressure    |

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- 14) Define least count of any device
- 15) Define electric current and give its unit.
- 16) Differentiate between absorption and adsorption
- 17) **Fill in the blanks:**
  - i) ..... isotope is used in the nuclear reactors
  - ii) The valency of Argon is .....
- 18) What are groups and periods in the modern periodic table?
- 19) NaCl is insoluble in carbon tetrachloride but soluble in water. Give Reason
- 20) What is nastic movement?
- 21) What is an adulterant?
- 22) 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.

**Part - III****III. Answer any 7 of the following questions. (Q.No. 32 is compulsory) 7x4=28**

- 23) Differentiate mass and weight.
- 24) a) State Fleming's Left Hand Rule  
b) State the advantages of ac over dc
- 25) Write the differences between elements and compounds and give an example for each
- 26) What are the limitations of Mendeleev's periodic table?
- 27) An atom x with atomic number 20 combines with atom y with atomic number 8. Draw the dot structure for the formation of molecule xy
- 28) List out the differences between mitosis and meiosis (any four)
- 29) How will you differentiate the different types of transpiration?
- 30) Name the types of teeth present in an adult human being. Mention the functions of each
- 31) Write any one function of the following minerals  
a) Calcium                      b) Sodium                      c) Iron                      d) Iodine
- 32) Density of mercury is  $13600 \text{ kg m}^{-3}$ . Calculate the relative density.

**Part - IV****IV. Answer in detail (answer all the questions)****3x7=21**

- 33) a) Explain different types of motion  
**(OR)**  
b) Explain with diagrams how refraction of Incident light takes place from  
i) rarer to denser medium  
ii) denser to rarer medium  
iii) **Normal to the surface separating the two media**
- 34) a) Explain the postulates of Bohr's atomic model  
**(OR)**  
b) Write any five uses of Salt
- 35) a) Give an account on phylum Arthropoda  
**(OR)**  
b) Suggest the immunization schedule for a new born baby till 12 months of age. Why it is necessary to follow the schedule.