

**Standard 9****SCIENCE**

Marks: 75

Time: 3.00 Hours

PART-I**I. Choose the best answer****12x1=12**

- 1) Rulers, measuring tapes and metre scales are used to measure
 - a) mass
 - b) weight
 - c) time
 - d) length
- 2) is defined as the change in position of a moving body in a particular direction
 - a) Distance
 - b) Displacement
 - c) Speed
 - d) velocity
- 3) Clouds float in atmosphere because of their low
 - a) density
 - b) pressure
 - c) velocity
 - d) mass
- 4) 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
- 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) The maximum number of electrons that can be accomodated in a shell is equal to
 - a) $0.n^1$
 - b) $1.H^1$
 - c) $2n^2$
 - d) $2n^3$
- 7) Change in the number of neutrons in an atom changes it to
 - a) an ion
 - b) an isotope
 - c) an isobar
 - d) another element
- 8) Modern periodic law states that the physical and chemical properties of elements are the periodic functions of their
 - a) atomic numbers
 - b) atomic mases
 - c) similarities
 - d) anomalies
- 9) Find the group having only marine members
 - a) Mollusca
 - b) coelenterata
 - c) Echinodermata
 - d) Porifera
- 10) Which of the following is a complex tissue?
 - a) parenchyma
 - b) collenchyma
 - c) xylem
 - d) Sclerenchyma
- 11) The tropic movement that helps the climbing vines to find a suitable support is
 - a) Phototropism
 - b) Geotropism
 - c) Thigmotropism
 - d) chemotropism
- 12) A presentation consists of many
 - a) Pages
 - b) slides
 - c) place holders
 - d) messages

PART-II**II. Answer any 7 questions. Q.No. 22 is compulsory:****7x2=14**

13) Define measurement

14) **Match the following:**

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

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- 15) A few drops of 'Dettol' when added to water the mixture turns turbid. Why?
- 16) How was it shown that atom has empty space?
- 17) State whether true or false. If false correct the statement
 - i) Alloys bear the characteristics of both metals and non metals
 - ii) Group 17 elements are named as Halogens
- 18) How are the limbs of the birds adapted for avian life?
- 19) In which stage of mitosis the chromosomes align in an equatorial plate? How?
- 20) Define transpiration
- 21) What is a slide?
- 22) A block of wood of weight 200 g floats on the surface of water. If the volume of block is 300 cm^3 , calculate the upthrust due to water.

PART-III**III. Answer any 7 questions. Q.No. 32 is compulsory:****7x4=28**

- 23) Write the rules that are followed in writing the symbols of units in SI system
- 24) Explain different types of motion
- 25) How does an objects density determine whether the object will sink or float in water?
- 26) What conclusions were made from the observations of Gold foil experiment?
- 27) State any five features of modern periodic table
- 28) List five characteristic features of fishes
- 29) List out the differences between mitosis and meiosis
- 30) How will you differentiate the different types of transpiration?
- 31) i) What is Chlorophyll?
ii) What is nastic movement
- 32) Explain Tyndall effect and Brownian movement with suitable diagram

PART-IV**IV. Answer all the questions:****3x7=21**

- 33) a) How will you find the thickness of a one rupee coin?
(OR)
b) Explain the construction and working of a hydrometer with diagram
- 34) a) i) How is a mixture of common salt, oil and water separated? You can use a combination of different methods?
ii) **Fill in the blanks**
 1. Alcohol can be separated from water by
 2. Chromatography is based on the principle of**(OR)**
- b) i) State modern periodic law
ii) What are the limitations of Mendeleev's periodic table?
- 35) a) i) Define taxonomy
ii) Describe the characteristic features of different prochordates
(OR)
b) Write about the elements of xylem.

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