

Standard 9

SCIENCE

Maximum Marks: 75

Time Allowed: 3.00 Hours

Part-I

Choose the correct answer:

12×1=12

- 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 among the following is not a device to measure mass?
 - a) Spring balance
 - b) Beam balance
 - c) Physical balance
 - d) Digital balance
- 3) When the reflecting surface is curved outwards the mirror formed will be
 - a) concave mirror
 - b) plane mirror
 - c) convex mirror
 - d) spherical mirror
- 4) Elements in the modern periodic table are arranged in _____ groups and _____ periods.
 - a) 7,18
 - b) 18,7
 - c) 17,8
 - d) 8,17
- 5) Elements with stable electronic configurations have eight electrons in their valence shell. They are _____.
 - a) halogens
 - b) metals
 - c) noble gases
 - d) non-metals
- 6) When we mix a drop of ink in water we get a _____.
 - a) Heterogeneous mixture
 - b) Compound
 - c) Homogeneous mixture
 - d) Suspension
- 7) The structural and functional unit of the kidney is _____.
 - a) Villi
 - b) Liver
 - c) Nephron
 - d) Ureter
- 8) Food and Adulteration Act was enforced by Government of India in the year _____.
 - a) 1964
 - b) 1954
 - c) 1950
 - d) 1963
- 9) The organ affected by Jaundice is
 - a) liver
 - b) lungs
 - c) kidney
 - d) brain
- 10) The fibres consists of
 - a) Parenchyma
 - b) Sclerenchyma
 - c) Collenchyma
 - d) None of above
- 11) Mesoglea is present in
 - a) Porifera
 - b) Coelenterata
 - c) Annelida
 - d) Arthropoda
- 12) Transpiration takes place through _____.
 - a) fruit
 - b) seed
 - c) flower
 - d) stomata

Part-II

Answer any seven. Q.No.22 is compulsory:

7×2=14

- 13) Define measurement.
- 14) State Fleming's Left Hand Rule.
- 15) Why does a helium balloon float in air?
- 16) Define sublimation.
- 17) Why are Noble gases inert in nature?
- 18) Define aquaregia.
- 19) Differentiate Phototropism from Photonasty.

TVL9S

20) Match the following:

- | | | |
|--------------|---|------------------------------|
| 1. Skin | - | Urine ³ |
| 2. Lungs | - | Sweat ¹ |
| 3. Intestine | - | Carbondioxide ² |
| 4. Kidneys | - | Undigested food ⁴ |

21) Distinguish between Virion and Viroid.

22) The speed of light in water is $2.25 \times 10^8 \text{ ms}^{-1}$. If the speed of light in vacuum is $3 \times 10^8 \text{ ms}^{-1}$, Calculate refractive index of water.**Part-III****Answer any seven. Qn.No.32 is compulsory:****7×4=28**

23) Explain different types of motion.

24) List the safety features while handling electricity.

25) i) What is the speed of light in vacuum?

ii) True or False? If false, correct the statement.

a) The convex mirror always produces a virtual, diminished and erect image of the object.

b) When an object is at the centre of curvature of concave mirror the image formed will be virtual and erect.

26) State the Gay Lussac's law of combining volumes. Explain with an illustration.

27) Discuss in brief about the properties of co-ordinate covalent compounds.

28) List out the differences between mitosis and meiosis.

29) How will you differentiate the different types of transpiration?

30) Give an account on Phylum Arthropoda.

31) i) What is adulterant?

ii) What are the effects of consuming adulterated food?

32) Calculate the atomic number of an element whose mass number is 39 and number of neutrons is 20. Also find the name of the element.

Part-IV**Answer all the questions:****3×7=21**

33) i) Write the rules that are followed in writing the symbols of units in SI system.

ii) Differentiate mass and weight.

(OR)

a) Draw and ray diagrams to show how the image is formed using a concave mirror, when the position of object is : (i) at c (ii) between C and F (iii) between F and P of the mirror.

b) Mention the Position and nature of image in each case.

34) Give the tests to identify Acids and Bases.

(OR)

Write the differences between elements and compounds and give an example for each.

35) Suggest the immunization schedule for a new born baby till 12 months of age. Why it is necessary to follow the schedule?

(OR)

Describe the alimentary canal of man.