Tsi10S

Tenkasi District

Common Half Yearly Examination - December 2025

007349

- - - - -

## Standard 10

Time Allowed: 3.00 Hours **SCIENCE** Maximum Marks: 75

**I. Answer all the questions. Choose the correct answer: 12×1=12**

1) In which of the following sport the turning of effect of force used
   a) swimming b) tennis c) cycling d) hockey
2) Power of a lens is -2D, then its focal length is _____.
   a) 2 m b) –20 m c) –0.5 m d) 5 m
3) _____ aprons are used to protect us from gamma radiations.
   a) Lead oxide b) Iron c) Lead d) Aluminium
4) The volume occupied by 1 mole of a diatomic gas at S.T.P is
   a) 11.2 litre b) 5.6 litre c) 22.4 litre d) 44.8 litre
5) Solubility of Ammonia gas is _____.
   a) 80g/100g Water b) 48g/100g Water
   c) 36g/100g Water d) 95g/100g Water
6) Rectified spirit is an aqueous solution which contains about _____ of ethanol.
   a) 95.5% b) 75.5% c) 55.5% d) 45.5%
7) The xylem and phloem arranged side by side on same radius is called _____.
   a) radial b) conjoint
   c) amphivasal d) none of these
8) The wall of human heart is made of _____.
   a) Endocardium b) Epicardium
   c) Myocardium d) All of the above
9) Planaria reproduces asexually by _____.
   a) Fission b) Budding
   c) Fragmentation d) Regeneration
10) The term Ethnobotany was coined by _____.
   a) Khorana b) J.W.Harsbberger
   c) Ronald Ross d) Hugo de Vries
11) Cancer of the epithelial cells is called _____.
   a) Leukaemia b) Sarcoma c) Carcinoma d) Lipoma
12) Where you will create category of blocks?
   a) Bluck palette b) Block menu
   c) Script area d) Sprite

**II. Answer any seven questions: [Q.No.22 is Compulsory] 7×2=14**

13) State shell's law.
14) Define one calorie.
15) Write about the uses of Copper.
16) **State True or False. [If false give the correct statement]**
   i) Sodium chloride dissolved in water forms a non-aqueous solution.
   ii) Periodical removal of one of the products of a reversible reaction increases the yield.
17) Write the dental formula of rabbit.
18) What are corpora quadrigemina?

19) Draw a picture of adrenal gland and label the parts.

20) Define genetic engineering.

21) **Match the following:**

| Column I | | Column II |
|---|---|---|
| 1) Biogas | - | Renewable energy |
| 2) Natural gas | - | Acid rain |
| 3) Green house gas | - | Non-renewable energy |
| 4) Wind | - | $CO_2$ |

22) A torch bulb is rated at 3V and 0.6 A. Calculate its resistance.

**III. Answer any seven questions: [Q.No.32 is compulsory]** **7×4=28**

23) a) State Newton's second law.
b) State the Law of Volume.

24) What are the advantages of LED bulb.

25) a) Mention two cases in which there is no doppler effect in sound.
b) What is Nuclear fusion?

26) a) State the Henry's Law.
b) Name the simplest ketone and give its structural formula.

27) Draw the transverse section of Dicot root and Label any 4 parts.

28) How are arteries and veins structurally different from one another?

29) a) What is bolting? How can it be induced artificially?
b) What are the advantages of cross pollination?

30) Differentiate Type-1 and Type-2 diabetes mellitus.

31) What is the importance of Rain Water Harvesting?

32) Find the percentage of nitrogen in ammonia.
[Given valves : Atomic mass of nitrogen-14, Atomic mass of Hydrogen-1]

$NH_3$ $\frac{14}{18} \times 100$

**IV. Answer in Detail:** **3×7=21**

33) a) Differentiate mass and weight.
b) Explain the construction and working of a compound microscope.

**(OR)**

a) State Joules Law of Heating.
b) What is a nuclear reactor? Explain its essential parts with their functions.

34) a) Define solubility.
b) Give the salient features of "Modern atomic theory".

**(OR)**

a) Differentiate reversible and irreversible reactions.
b) Explain the mechanism of cleaning action of soap.

35) a) Write the reaction for photosynthesis.
b) Name the parts of the Hind brain.
c) Name the gaseous plant hormone. Describe its three different actions in plants.

**(OR)**

a) What are okazaki fragments?
b) Define Ethnobotany.
c) Expand the following abbreviations.
(i) BMI (ii) AIDS (iii) ELISA

---