

Tsi109

Tenkasi District
Common First Revision Examination - 2025



13-01-25

Standard 10**SCIENCE****Part - I**

Time: 3.00 Hours

Marks: 75

I. Choose the correct answer:**12x1=12**

- 1) The eye defect 'presbyopia' can be corrected by
 a) convex lens b) concave lens c) convex mirror d) Bifocal lens
- 2) The S.I unit of specific resistance is
 a) mho b) ohm/meter c) ohm d) ohm meter
- 3) In which of the following reaction, the mass number decreases by four of the daughter nucleus?
 a) α decay b) β decay c) γ decay d) neutron decay
- 4) When pressure is increased at constant temperature the solubility of gases in liquid.....
 a) no change b) increases c) decreases d) no reaction
- 5) The value of ionic product of water at 25°C is
 a) $1 \times 10^{-14} \text{ mol}^2 \text{ dm}^{-6}$ b) $1 \times 10^{-14} \text{ mol dm}^6$
 c) $1 \times 10^{-14} \text{ mol}^{-2} \text{ dm}^{-6}$ d) None of these
- 6) The segments of leech are known as
 a) Metamerer b) Proglottids c) Strobila d) All the above
- 7) is called as Heart of heart
 a) SA node b) AV node c) Purkinje fibres d) Bundle of His
- 8) Vomitting centre is located in
 a) medulla oblongata b) Stomach
 c) Cerebrum d) hypothalamus
- 9) Which one of the following is an IUCD?
 a) Copper - T b) Oral pills c) Diaphragm d) Tubectomy
- 10) The loss of one or more chromosome in a ploidy is called
 a) Tetraploidy b) Aneuploidy c) Euploidy d) Polyploidy
- 11) Father of green revolution is
 a) Leonard da Vinci b) Dr.M.S.. Sawaminathan
 c) Dr.Norman E.Borlaug d) Dr.Nehemiah Crew
- 12) Which is used to edit programs?
 a) Inkscape b) Script editor c) Stage d) sprite

Part - II**II. Answer any 7 questions (Q.No. 22 is compulsory)****7x2=14**

- 13) Define inertia. Give its classification
- 14) Give the advantages of LED television
- 15) **Match the following**
 a) Fe - 59 - Age of Fossil
 b) I - 131 - Function of Heart
 c) Na - 24 - Leukemia
 d) C-14 - Thyroid disease
- 16) **Say true or false. If false give the correct statement**
 i) Solutions which contain three components are called binary solution
 ii) The molecular formula of green vitriol is $\text{MgSO}_4 \cdot 7\text{H}_2\text{O}$

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17) **Fill in the blanks**

- i) The general molecular formula of alkynes is
- ii) The alkaline hydrolysis of fatty acids is termed as
- 18) What is respiratory quotient?
- 19) How does leech suck blood from the host?
- 20) The complete events of cardiac cycle last for 0.8 second. What is the timing for each event?
- 21) What is the role of parathormone?
- 22) Draw the structure of pollen grain and label its parts

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

- 23) List any four properties of light
- 24) Derive the ideal gas equation
- 25) State the reasons for alloying
- 26) Differentiate medullated and Non-medullated nerve fibre
- 27) With a neat labelled diagram describe the parts of a typical angiospermic ovule
- 28) Define Ethnobotany and write its importance?
- 29) 'P' is a gene required for the synthesis of vitamin A. It is integrated with the genome of Q to produce genetically modified plant 'R'
 - i) What is P, Q and R
 - ii) State the importance of R in India
- 30) What are the various routes by which transmission of Human Immuno Deficiency virus takes place?
- 31) List any three activities based on 4R approach to conserve natural resources
- 32) Calculate the number of moles in
 - i) 27g of Aluminium
 - ii) 1.51×10^{23} molecules of NH_4Cl

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

- 33) a) i) How does an astronaut float in a space shuttle? (2)
 - ii) Describe rocket propulsion (5)
- (OR)**
- b) i) What do you understand by the term Ultrasonic vibration (2)
 - ii) State three uses of ultrasonic vibrations. (3)
 - iii) Name three animals which can hear ultrasonic vibrations (2)

- 34) a) i) What is a chemical equilibrium? (2)
- ii) What are the characteristics of chemical equilibrium (5)

(OR)

- b) How is ethanol manufactured from sugarcane (7)
- 35) a) i) Bring the differences between arteries and vein (5)
- ii) Mention the types of granulated WBC.

(OR)

- b) Explain with an example the inheritance of dihybrid cross. How is it different from monohybrid cross?
