

Tsi10S

Tenkasi District
Second Revision Examination - 2024



14-02-2024

Standard 10

SCIENCE

Part - I

Time: 3.00 Hours

Marks: 75

I. Choose the best answer

12x1=12

- 1) In a myopic eye, the image of the object is formed
 - a) behind the retina
 - b) On the retina
 - c) in front of the retina
 - d) on the blind spot
- 2) SI unit of resistance is
 - a) mho
 - b) joule
 - c) ohm
 - d) ohm meter
- 3) Velocity of sound in a gaseous medium is 330ms^{-1} . If the pressure is increased by 4 times without causing a change in the temperature, the velocity of sound in the gas is
 - a) 330ms^{-1}
 - b) 660ms^{-1}
 - c) 156ms^{-1}
 - d) 990ms^{-1}
- 4) The basis of modern periodic law is
 - a) atomic number
 - b) atomic mass
 - c) isotopic mass
 - d) number of neutrons
- 5) When pressure is increased at constant temperature the solubility of gases in liquid
 - a) No change
 - b) increases
 - c) decrease
 - d) no reaction
- 6) Photolysis is a decomposition reaction caused by
 - a) heat
 - b) electricity
 - c) light
 - d) mechanical energy
- 7) The endarch condition is the characteristic feature of
 - a) root
 - b) stem
 - c) leaves
 - d) flower
- 8) The segments of leech are known as
 - a) Metameres (somites)
 - b) Proglottids
 - c) strobila
 - d) all the above
- 9) Avena coleoptile test was conducted by
 - a) Darwin
 - b) N.Smit
 - c) paal
 - d) F.W.Went
- 10) The units form the backbone of DNA
 - a) 5 carbon sugar
 - b) phosphate
 - c) Nitrogenous bases
 - d) Sugar phosphate
- 11) Cancer of the epithelial cells is called
 - a) Leukemia
 - b) Sarcoma
 - c) carcinoma
 - d) Lipoma
- 12) All files are stored in the
 - a) folder
 - b) box
 - c) paint
 - d) scanner

Part - II

II. Answer any 7 of the following, Q.No. 22 is compulsory.

7x2=14

- 13) Define moment of a couple
- 14) State the law of volume
- 15) State two conditions necessary for rusting of iron

16) Match the following

- | | |
|--------------------------|----------------------|
| i) Functional group - OH | - Benzene |
| ii) Hetero cyclic | - Potassium stearate |
| iii) Unsaturated | - Alcohol |
| iv) Soap | - Furan |
| v) Carbocyclic | - Ethene |

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- 17) Draw and label the structure of oxysomes
- 18) Why are thyroid hormones referred as personality hormone?
- 19) Why did Mendel select pea plant for his experiments
- 20) Differentiate between outbreeding and Inbreeding
- 21) What is Scratch?
- 22) A sound wave has a frequency of 200 Hz and a speed of 400 ms^{-1} in a medium. Find the wavelength of the sound wave.

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

- 23) List any five properties of light
- 24) a) Define the unit of current
b) What happens to the resistance, as the conductor is made thicker?
- 25) Differentiate reversible and irreversible reactions
- 26) a) What is collateral vascular bundle
b) **Fill in the blanks**
i) Glycolysis takes place in
ii) is ATP factory of the cell
- 27) a) How is diastema formed in rabbit?
b) Identify whether the statements are true or false correct the false statement
i) An anticoagulant present in saliva of leech is called heparin
ii) The vas deferens serves to transport the ovum
- 28) Classify neurons based on its structure
- 29) Luteal phase of the menstrual cycle is also called the secretory phase. Give reason.
- 30) How do you differentiate homologous organs from analogous organs?
- 31) a) What are psychotropic drugs?
b) What are the contributing factors for obesity?
- 32) A solution is prepared by dissolving 45g of sugar in 180g of water. Calculate the mass percentage of solute.

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

- 33) a) State and prove the law of conservation of linear momentum
(OR)
b) What is a nuclear reactor? Explain its essential parts with their functions
- 34) a) i) Give the salient features of modern atomic theory
ii) Give any two examples for heterodiatomic molecules
(OR)
b) Explain the mechanism of cleansing action of soap
- 35) a) i) What is transpiration? Give the importance of transpiration
ii) Why is the colour of the blood red?
(OR)
b) What are the sources of solid wastes? How are solid wastes managed?
