

Tsi10S

Tenkasi District



First Revision Examination, January - 2024

31-01-2024

Standard 10**SCIENCE**

Time: 3.00 Hours

Marks: 75

Part - I**I. Answer all the questions:**

[Choose the most suitable answer and write the code with corresponding answer] **12x1=12**

- 1) One kilogram force equals to _____
a) 9.8 dyne b) 9.8×10^4 N c) 98×10^4 dyne d) 980 dyne
- 2) The SI unit of electrical energy is _____
a) joule b) watt c) volt d) ohm meter
- 3) An isotope of _____ is used as a smoke detector
a) californium-252 b) Americium-241 c) Cobalt-60 d) Iodine-131
- 4) The gram molecular mass of oxygen molecule is _____
a) 16 g b) 18 g c) 32 g d) 17 g
- 5) When pressure is increased at constant temperature the solubility of gases in liquids _____
a) No change b) increases c) decreases d) no reaction
- 6) Mixture of 95% of ethanol and 5% of methanol is called _____
a) rectified spirit b) absolute alcohol c) wash d) methylated spirit
- 7) The endarch condition is the characteristic feature of _____
a) root b) stem c) leaves d) flower
- 8) During transpiration there is loss of _____
a) Carbon di oxide b) oxygen c) water d) none of the above
- 9) _____ is an example of vegetative reproduction may take place through bulbils
a) Bryophyllum b) Strawbreey c) Sweet Potato d) Agave
- 10) We can cut the DNA with the help of _____
a) scissors b) restriction endonucleases c) knife d) RNB ase
- 11) The world largest wind turbine is situated in _____
a) California b) Hawaii c) India d) Africa
- 12) Which is used to build scripts?
a) Script area b) Block palette c) Stage d) Sprite

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

- 13) Distinguish between ideal gas and real gas.
- 14) Match the following:

Column - I	Column - II
1) Infrasonic	- Compressions
2) Echo	- 22 Khz
3) Ultrasonic	- 10 hz
4) High Pressure Region	- Ultrasonography
- 15) What is rust? Give the equation for formula of rust.
- 16) Why does the reaction rate of a reaction increase on raising the temperature?
- 17) How is diastema formed in rabbit?
- 18) Define reflex arc.

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- 19) State whether true or false if false write the correct statement:
 i) Estrogen is secreted by corpus luteum.
 ii) Gibberellins cause parthenocarphy in tomato.
- 20) Draw the structure of sperm and label its parts.
- 21) Expand the following abbreviations:
 (i) AIDS (ii) CHD
- 22) A beam of light converges at a point P. Now a lens is placed in the path of the convergent beam 12 cm from P. At what point does the beam converge if the lens is a convex lens of focal length 20 cm.

Part - III

III. Answer any seven questions. Q.No. 32 is compulsory.

7x4=28

- 23) i) State Newton's Second Law.
 ii) State Rayleigh's Law of Scattering.
- 24) i) What is coefficient of real expansion.
 ii) What happens to the resistance, as the conductor is made thicker?
- 25) Differentiate Nuclear fission and Nuclear fusion.
- 26) i) Define volume percentage.
 ii) What is called TFM? Which value of TFM refers to good bathing soap?
- 27) i) Draw the structure of chloroplast.
 ii) What is the importance of valves in the heart?
- 28) Classify neurons based on its structure.
- 29) i) Write the characteristics of insect pollinated flowers.
 ii) Why is Archaeopteryx considered to be a connecting link?
- 30) i) Name three improved characteristics of wheat that helped India to achieve high productivity.
 ii) What are the contribution factors of obesity?
- 31) What are the consequences of deforestation?
- 32) Calculate the % of each element in calcium carbonate.
 [Atomic mass C-12, O-16, Ca-40]

Part - IV

IV. Answer all the questions.

3x7=21

- 33) i) Differentiate the eye defects. Myopia and Hypermetropia.
 ii) State Joule's Law of heating.
- (OR)
- i) Write the factors that affect the speed of sound in gases.
 ii) Give any two uses of radio isotopes in the field of agriculture?
- 34) i) Derive the relationship between relative molecular mass and vapour density.
 ii) State two conditions necessary for rusting of iron.
- (OR)
- i) Differentiate reversible and irreversible reactions.
 ii) Arrive at, systematically the IUPAC name of the compound
 $\text{CH}_3\text{-CH}_2\text{-CH}_2\text{-OH}$
- 35) i) Explain male reproductive system of rabbit with a labelled diagram.
 ii) Write the physiological effects of gibberellins.
- (OR)
- i) Enumerate the importance of forest.
 ii) How is cancer cell differs from a normal cell?
