

Ts10S

Tenkasi District Common Examinations
Common Third Revision Examination - March 2023



15 03 2023

Standard 10

Time: 3.00 Hours

SCIENCE

Marks: 75

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

- 1) Inertia of a body depends on
 - a) Weight of the object
 - b) acceleration due to gravity of the planet
- 2) Where should an object be placed so that a real and inverted image of same size is obtained by a convex lens
 - a) f
 - b) 2f
 - c) infinity
 - d) between f and 2f
- 3) The frequency, which is audible to the human ear is
 - a) 50KHZ
 - b) 20 KHZ
 - c) 15000KHZ
 - d) 10000 KHZ
- 4) isotope is used for the treatment of cancer.
 - a) Radio Iodine
 - b) Radio cobalt
 - c) Radio carbon
 - d) Radio Nickel
- 5) 1 mole of any substance contains molecules.
 - a) 6.023×10^{23}
 - b) 6.023×10^{-23}
 - c) 3.0115×10^{23}
 - d) 12.046×10^{23}
- 6) is an important metal to form amalgam
 - a) Ag
 - b) Hg
 - c) Mg
 - d) Al
- 7) Photolysis is a decomposition reaction caused by
 - a) heat
 - b) electricity
 - c) light
 - d) mechanical energy
- 8) TFM in soaps represents content in soap.
 - a) mineral
 - b) vitamin
 - c) fatty acid
 - d) Carbohydrate
- 9) The body of leech has
 - a) 23 segments
 - b) 33 segments
 - c) 38 segments
 - d) 30 segments
- 10) Which organ acts as both exocrine gland as well as endocrine gland.
 - a) pancreas
 - b) kidney
 - c) liver
 - d) lungs
- 11) The 'use and disuse theory' was proposed by
 - a) Charles Darwin
 - b) Ernst Haeckel
 - c) Jean Baptise Lamarck
 - d) Gregor mendel
- 12) Which is used to build scripts?
 - a) Script area
 - b) Block palette
 - c) stage
 - d) sprite

PART - II**Answer any seven questions.****7×2=14****[Question No. 22 is compulsory]**

- 13) State Boyle's law.
- 14) Define the unit of current
- 15) a) What is the minimum distance needed for an echo?
b) Name the three animals, which can hear ultrasonic vibrations.
- 16) Define: Atomicity
- 17) Why does the reaction rate of a reaction increase on raising the temperature?
- 18) How ethanol is prepared from ethanoic acid and write the equation.
- 19) Define triple fusion.
- 20) The degenerated wing of a kiwi is an acquired character. Why is it an acquired character?

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- 21) State the applications of DNA fingerprinting technique.
 22) Identify the parts A, B, C, D.



PART - III

Answer any seven questions.

7x4=28

[Q.No: 32 is compulsory]

- 23) a) Define one calorie.
 b) State the law of volume
- 24) a) State Joule's law of heating.
 b) An alloy of nickel and chromium is used as the heating element. why?
- 25) a) Why does sound travel faster on a rainy day than on a dry day?
 b) Explain why ceilings of concert halls are curved.
- 26) a) What is rust? Give the equation for formation of rust
 b) State two conditions necessary for rusting of iron.
- 27) Differentiate soaps and detergents.
- 28) List out the parasitic adaptations of leech.
- 29) Write the differences between endocrine and exocrine gland.
- 30) A pure tall plant (TT) is crossed with pure dwarf plant (tt) What would be the F_1 and F_2 generations? Explain.
- 31) a) is the most commonly used fuel for the production of electricity.
 b) Removal of soil particles from the land is called
 c) State whether true (OR) false, if false correct the statement.
 i) The use and disuse theory of organs was postulated by Charles Darwin.
 ii) Birds have evolved from reptiles.
- 32) The hydroxide ion concentration of a solution is $1 \times 10^{-11} M$
 What is the pH of the solution?

PART - IV

Answer all the questions.

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 3x7=21

- 33) What are the types of inertia? Give an example for each type.
 (OR) Tenkasi District.
- a) State Soddy and Fajan's displacement law.
 b) Write any three features of natural and artificial radio activity.
- 34) Derive the relationship between Relative molecular mass and vapour density
 (OR)
 Explain the mechanism of cleaning action of soap.
- 35) a) Differentiate Monocot and Dicot root?
 b) What is respiratory quotient?
 (OR)
 a) Enumerate the functions of blood.
 b) Why is the circulation in man referred to as double circulation?