

Ts10S

Tenkasi District



Common Second Mid Term Test - 2024

27-11-24

Standard 10

SCIENCE

PART - I

Time: 1.30 Hours

Marks: 50

I. Choose the correct answer :

10×1=10

- 1) The minimum distance needed for an echo is
 - a) 17.2 m
 - b) 17.5 m
 - c) 17.8 m
 - d) 17.6 m
- 2) The frequency which is audible to the human ear is
 - a) 50 KHz
 - b) 20 KHz
 - c) 15000 KHz
 - d) 10000 KHz
- 3) The S.I unit of radioactivity is
 - a) roentgen
 - b) curie
 - c) becquerel
 - d) all the above
- 4) aprons are used to protect us from gamma radiations
 - a) Lead oxide
 - b) Iron
 - c) Lead
 - d) Aluminium
- 5) Photolysis is a decomposition reaction caused by
 - a) Heat
 - b) Light
 - c) electricity
 - d) mechanical energy
- 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 term Ethnobotany was coined by
 - a) Khorana
 - b) J.W.Harsberger
 - c) Ronald Ross
 - d) Hugo de Vries
- 8) The best way of direct dating fossils of recent origin is by
 - a) Radio - carbon method
 - b) Uranium lead method
 - c) Potassium - argon method
 - d) Both (a) and (c)
- 9) Pusa Komal is a disease resistant variety of
 - a) sugarcane
 - b) rice
 - c) cow pea
 - d) maize
- 10) World 'No Tobacco Day' is observed on
 - a) May 31
 - b) June 6
 - c) April 22
 - d) October 2

PART - II

II. Answer any 7 questions: Q.No. 20 is compulsory.

7×2=14

- 11) Name three animals which can hear Ultrasonic Vibrations
- 12) Explain why the ceilings of concert halls are curved?
- 13) Arrange in descending order on the basis of their penetration power
Alpha rays, Beta rays, Gamma rays, Cosmic rays.
- 14) Say true or false
 - i) Silver metal can displace hydrogen gas from nitric acid.
 - ii) The normal pH of human blood is 6.4
- 15) Name the simplest ketone and give its structural formula
- 16) Why is Archaeopteryx considered to be a connecting link?
- 17) Define genetic engineering
- 18) Expand (i) HIV (ii) BMI
- 19) How are e-wastes generated?
- 20) If the pH of a solution is 4.5. What is its P^{OH} ?

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PART - III

III. Answer any 3 questions: Q.No. 25 is compulsory.

3×4=12

- 21) a) What is the audible range of frequency
 b) Mention two cases in which there is no Doppler effect in sound.
- 22) Differentiate reversible and irreversible reactions.
- 23) State the applications of DNA finger printing technique.
- 24) How can you determine the age of the fossils?
- 25) If A is a radioactive element which emits alpha particle and produces ${}_{104}\text{Rf}^{259}$.
 Write the atomic number and mass number of the element A.

PART - IV

IV. Answer all the questions:

2×7=14

- 26) a) Compare the properties of alpha, beta and gamma radiations.

(OR)

- b) The molecular formula of an alcohol is $\text{C}_4\text{H}_{10}\text{O}$. The locant number of its -OH group is 2

- i) Draw its structural formula
 ii) Give its IUPAC name
 iii) Is it saturated or unsaturated
- 27) a) i) Differentiate between outbreeding and inbreeding?
 ii) What are transgenic organisms?

(OR)

- b) i) What is metastasis?
 ii) Suggest measures to overcome the problems of an alcoholic

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