

**Class : 10**Register  
Number**SECOND MID TERM TEST-NOVEMBER - 2023**

Time Allowed : 1.30 Hours]

**SCIENCE**

[Max. Marks : 50

**PART - I****I. Choose the best answer.****9x1= 9**

1. When a sound wave travel through air, the air particles
  - (a) Vibrate along the direction of the wave
  - (b) Vibrate but not in any fixed direction
  - (c) Vibrate perpendicular to the direction of the wave motion
  - (d) Do not vibrate
2. The frequency, which is audible to the human ear is
  - (a) 50 kHz
  - (b) 20 kHz
  - (c) 15000 kHz
  - (d) 10000 kHz
3. ----- isotope is used for the treatment of Cancer.
  - (a) Radio Iodine
  - (b) Radio Cobalt
  - (c) Radio Carbon
  - (d) Radio Nickel
4. Photolysis is decomposition reaction caused by -----
  - (a) Heat
  - (b) Electricity
  - (c) Light
  - (d) Mechanical energy
5. TFM is soaps represents ----- content in soap.
  - (a) Mineral
  - (b) Vitamin
  - (c) Fatty acid
  - (d) Carbohydrate
6. The term Ethnobotany was coined by
  - (a) Khorana
  - (b) J.W. Harsbberger
  - (c) Ronald Ross
  - (d) Hugo de vries
7. Pusa Komal is a disease resistant variety of -----
  - (a) Sugarcane
  - (b) Rice
  - (c) Cow Pea
  - (d) Maize
8. World 'No Tobacco Day' is observed on
  - (a) May 31
  - (b) June 6
  - (c) April 22
  - (d) October 2
9. Polyphagia is a condition seen in
  - (a) Obesity
  - (b) Diabetes mellitus
  - (c) Diabetes Insipidus
  - (d) AIDS

**PART - II****II. Answer any four of the following questions.****4x2=8**

10. Name three animals, which can hear Ultrasonic Vibrations.
11. Give any two uses of Radio Isotopes in the field of Agriculture.
12. Why does the reaction rate of a reaction increase on raising the Temperature?

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## 13. Fill in the blanks:

- a) The normal pH of Human blood is -----  
 b) 100 % pure ethanol is called -----

14. Define Ethnobotany.

15. A sound wave has a frequency of 200 Hz and a speed of 400 ms<sup>-1</sup> in a medium. Find the wave length of the sound wave.**PART - III****III. Answer any three of the following.****3x4=12**

16. a) What is the audible range of Frequency?  
 b) Mention two cases in which there is no Doppler effect in sound.
17. Write any four features of Natural and Artificial radioactivity.
18. a) Define Combination Reaction  
 b) Give one example for an Exothermic combination reaction.
19. a) Define Genetic Engineering.  
 b) Name the types of Stem cells.
20. a) What are Psychotropic Drugs?  
 b) How is a cancer cell different from a normal cell?

**PART - IV****IV. Answer in detail.****3x7=21**

21. a) What is an Echo?  
 (i) State two conditions necessary for hearing an echo.  
 (ii) What are the Medical application of Echo?  
 (iii) How can you calculate the speed of sound using Echo?

**(OR)**

b) Compare the properties of Alpha, beta and gamma radiations.

22. a) What is a Chemical Equilibrium? What are its characteristics.

**(OR)**

b) What is called Homologous series? Give any five of its characteristics.

23. a) (i) Why is Archaeopteryx considered to be a connecting link?
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- (ii) How do you differentiate Homologous organs from Analogous organs?

**(OR)**

b) i) State the applications of DNA Fingerprinting Technique.

ii) Discuss the Importance of Biotechnology in the field of Medicine.