

RM

# FIRST REVISION TEST - 2023

## BIOLOGY

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XII - Std

Time : 3.00 Hrs

Marks : 70

### Bio - Botany

#### I Choose the correct answer :-

8 X 1 = 8

- Find the correct statements.
  - In zosteria pollination occurs upper surface of the water.
  - Vallisneria is a monoecious and pollinated inside the water.
  - Trap mechanism seen in Aselepiadaceae
  - Piston mechanism seen in papilionaceae
- Match :-
 

i. Chemical weapon	-	1. GFP
ii. Induced mutation in plants	-	2. Thermal neutrons
iii. Castor seeds	-	3. Dichloro ethylsulphide
iv. Aequorea victoria	-	4. Gamma rays

a) i-3 ii-4 iii-2 iv-1    b) i-3 ii-4 iii-1 iv-2    c) i-3 ii-2 iii-1 iv-4    d) i-1 ii-3 iii-2 iv-4
- Pick out the wrong pair.
 

a) Vincristine	-	Anti carcinogenic
b) Codeine	-	Analgesic
c) Capsaicin	-	Ear Pain treatment
d) Quinine	-	Antimalarial
- The Alkaloid Juglone inhibits the growth of seedlings of
  - Apple and Tomato
  - Apple and Sugarcane
  - Alfalfa and sugarcane
  - Tomato and sugarcane
- Total ozone layer over the earth surface is
  - 0.3cm
  - 3cm
  - 3 mtr
  - 0.3 DU
- Assertion (A) Breeding crop with Higher Level of vitamins and minerals or higher protein and healthier fats is called tissue culture  
Reason (R) Growing plan protoplast, cells, tissues and organs under Natural condition in called tissue culture.
  - Both A and R correct
  - Both A and R wrong
  - A correct R wrong
  - A wrong R correct
- Which of the following indirectly increases carbon foot print
  - Kiwi
  - Litchi
  - Cherry
  - Berry
- Which of the following is used to stops platelets from clotting in arteries which leads to heart attack.
  - Tamarin
  - Alloin
  - Curcumin
  - Capsisine

### PART - B

#### II Answer any four questions :-

4 X 2 = 8

- What is Back Cross?
- Write any two algae which are used for SCP.
- What you mean Embryoids?
- What is ozone hole?
- What is Pseudo cereal?
- Define Ecology?

### PART - C

#### III Answer any three questions. Questions No. 19 is compulsory :-

3 X 3 = 9

- Write a short note on Pollen Kitt.
- Explain the Mechanism of crossing over.
- Write the three advantages of herbicide tolerant crops.
- Cryopreservation - Explain.
- What are seed balls?

### PART - D

#### IV Answer in detail :-

2 X 5 = 10

- Draw and Label the Diagram of L.S. of Ovule. (OR)
  - What is gene Mapping? Write its uses.
- Describe the Dihybrid ratio of Mendel with suitable example. (OR)
  - Give an account of seaweed liquid fertilizer.

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**Bio - Zoology**

**Section - I**

**1. Answer all questions. 2. Choose the most appropriate answer :-**

**8 X 1 = 8**

1. This gland is most active during neonatal and pre - adolescent periods  
a) Pineal gland                      b) Thymus                      c) Pituitary                      d) Thyroid
2. The mode of reproduction in bacteria is by  
a) Formation of gametes                      b) Endospore formation  
c) Conjugation                      d) Zoospore formation
3. A population will not exist in Hardy Weinberg equilibrium if  
a) Individuals mate selectively                      b) There are no mutations  
c) There is no migration                      d) The population is large
4. World biofuel day is observed every year on  
a) August 10th                      b) August 2nd                      c) August 5th                      d) August 20th
5. The nature sperms are stored in the  
a) Seminiferous tubules                      b) Vars deferens  
c) Epididymis                      d) Seminal vesicle
6. Match the following and choose the correct combination from the options given below  
**Column I**                      **Column II**  
a) Mutualism                      -                      1. Lion and deer  
b) Commensalism                      -                      2. Round worm and man  
c) Parasitism                      -                      3. Birds compete with squirrels for nuts  
d) Competition                      -                      4. Sea anemone on hermit crab  
e) Predation                      -                      5. Barnacles attached to whales  
a) A-4 B-5 C-2 D-3 E-1                      b) A-3 B-1 C-4 D-2 E-5  
c) A-2 B-3 C-1 D-5 E-4                      d) A-5 B-4 C-2 D-3 E-1
7. Which of the following is the correct sequence of event with reference to the central dogma of protein synthesis?  
a) Transcription, Transduction, Replication                      b) Transcription, Replication, Translation  
c) Duplication, Transcription, Translation                      d) Replication, Transcription, Translation
8. Incineration, Chemical disinfection, autoclaving, encapsulation are the methods of waste disposal of  
a) Plastic waste                      b) E - waste                      c) Medical waste                      d) Radioactive waste

**Section - 2**

**Note : Answer any four of the following questions :-**

**4 X 2 = 8**

9. Differentiate in situ bioremediation from exsitu bioremediation.
10. Write short note on ultrasound scanning.
11. Draw a labelled sketch of lymph node.
12. Write any two applications of PCR.
13. What are the effects of the introduction of tilapia fish from South Africa?
14. Placenta is an endocrine tissue - Justify.

**Section - 3**

**Note : Answer any three of the following Q.No. 19 is a compulsory one :-**

**3 X 3 = 9**

15. What is Pathenogenesis? Mention its types.
16. What is referred to as reverse transcription PCR?
17. Mention the three periods of Mesozoic era.
18. What are the applications of Karyotyping?
19. Differentials in situ conservation from exsitu conservation.

**Section - 4**

**Answer the following :-**

**2 x 5 = 10**

20. Explain the different types of natural birth control measures. (OR)  
Write down the applications of DNA fingerprinting technology.
21. Tabulate the interactions between two species populations with examples. (OR)  
Describe the various stages of Sewage treatment.