

## QUARTERLY EXAMINATION- 2023

CLASS :12

BIOLOGY



TIME : 3.00

BIO - BOTANY

MARKS : 70

### PART - A

#### I Choose the correct answer.

8 X 1 = 8

1. Arrange the layers of anther wall from locus to periphery
  - a) Epidermis, middle layers, tapetum, endothecium
  - b) Tapetum, middle layers, epidermis, endothecium
  - c) Endothecium, epidermis, middle layers, tapetum
  - d) Tapetum, middle layers, endothecium, epidermis
2. In his classic experiments on Pea plants, Mendel did not use
  - a) Flowering position
  - b) Seed colour
  - c) Pod length
  - d) Seed shape
3. Example of secondary metabolites
  - a) Amphotericin - B
  - b) Ethanol
  - c) Citric acid
  - d) Lactic
4. Eco RI cleaves DNA at
  - a) AGGGTT
  - b) GTATATC
  - c) GAATTC
  - d) TATAGC
5. The time duration for sterilization process by using autoclave is ..... minutes and the temperature is .....
  - a) 10 to 30 minutes and 125°C
  - b) 15 to 30 minutes and 121°C
  - c) 15 to 20 minutes and 125°C
  - d) 10 to 20 minutes and 121°C.
6. Which of the following represent mega gametophyte
  - a) Ovule
  - b) Embryo sac
  - c) Nucellus
  - d) Endosperm
7. In which techniques Ethidium Bromide is used?
  - a) Southern Blotting techniques
  - b) Western Blotting techniques
  - c) Polymerase Chain Reaction
  - d) Agrose Gel Electroporosis
8. Virus free plants are developed from
  - a) Organ culture
  - b) Meristem culture
  - c) Protoplast culture
  - d) Cell suspension culture

### PART - B

#### II Answer any four of the following question.

4 X 2 = 8

9. What is Cantharophily?
10. What is lethal allele?
11. Define : Crossing over.
12. Define totipotency.
13. What are restriction enzymes?
14. Draw the structure of pBR 322 .

### PART - C

#### III Answer any three of the following question. Number 19 is compulsory.

3 X 3 = 9

15. List out the functions of tapetum.
16. What is back cross? Mention its types.
17. How does linkage differ from crossing over?
18. Name the micro organisms used as of SCP.
19. Write the advantages of Bt cotton.

### PART - D

#### Answer all the questions.

2 X 5 = 10

20. a) What is endosperm? Explain the types. (OR)
- b) Give brief account on significance of ploidy.
21. a) Compare the various types of Blotting techniques. (OR)
- b) Explain the basic concepts involved in plant tissue culture.

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