

A COMMON QUARTERLY EXAMINATION - 2023

Standard - XII

Reg.No.

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Time: 3.00 hrs.

BIOLOGY

Marks: 70

PART - I [BIO - BOTANY]

Marks: 35

SECTION - I**Answer all the questions.****I. Choose the correct answer:****8 × 1 = 8**

1. Size of Pollen grain in Myosotis
 - a) 10 Micrometer
 - b) 20 micrometer
 - c) 200 micrometer
 - d) 2000 micrometer
2. Select the period for Mendel's hybridization experiments
 - a) 1856 -1863
 - b) 1850 - 1870
 - c) 1857 - 1869
 - d) 1870 - 1877
3. E.CORI cleaves DNA at
 - a) AGGGTT
 - b) GTATATC
 - c) GAATTC
 - d) TATAGC
4. Solidifying agent used in plant tissue culture is
 - a) Nicatinic acid
 - b) Cobaltous chloride
 - c) EDTA
 - d) Agar
5. Due to incomplete linkage in maize, the ratio of parental and recombinants are
 - a) 50 : 50
 - b) 7 : 1 : 1 : 7
 - c) 96 : 4 : 36
 - d) 1 : 7 : 7 : 1
6. Virus free plants are developed from
 - a) Meristem culture
 - b) cell suspension culture
 - c) Protoplast culture
 - d) organ culture
7. Gametes are never hybrid "This is a statement of
 - a) Law of segregation
 - b) Law of dominance
 - c) law of random fertilization
 - d) Law of independent assortment
8. Which of the following denotes the symbol of Monosomy
 - a) $2n + 1$
 - b) $2n + 2$
 - c) $2n - 1$
 - d) $2n - 2$

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SECTION - II

4×2=8

Answer any four of the following questions.

9. What is Mellitophily?
10. What is Atavism.
11. Name the seven contrasting traits of mendel.
12. Give the types of Synapsis.
13. What do you know about the word pBR322
14. Define callus.

SECTION - III**Answer any Three of the following questions.****Question NO.19 is compulsory.**

3×3=9

15. Write the importance of parthenocarpy.
16. What is Lethal genes? give example.
17. Draw the diagram of different types of aneuploidy.
18. Write the advantages of Bt cotton.
19. Write any three secondary metabolites and its plant resources with uses.

SECTION - IV**Answer all the questions.**

2×5=10

20. Enumerate the characteristic features of Entomophilous flowers.

(OR)

Tabulate the Difference between Blotting Techniques.

21. Explain the mechanism of crossing over.

(OR)

Write the advantages of Artificial seed.

PART - II [BIO - ZOOLOGY]

Marks: 35

SECTION - I

Note : i) Answer all the questions. ii) Choose the most appropriate answer from the given four alternatives and write the option code and the corresponding answer. 8×1=8

1. In which mode of reproduction variations are seen
 a. Asexual b) Parthenogenesis c) sexual d) Both a & b
2. The Androgen Binding protein (ABP) is produced by
 a) Leyding cell b) Hypothalamus c) Sertolicells d) Pituitary gland
3. Who discovered by sex hormones.
 a) Charles Darwin b) Adolf Butenandt c) Weismann d) Lamarck
4. Co - dominant blood group is
 a) A b) AB c) B d) O
5. Meselson and stahl's experiment proved
 a). Transduction
 b) Transformation
 c) DNA is the genetic material
 d) Semi - conservative nature of DNA Replication.
6. Evolutionary history of an organism is called
 a) ancestry b) ontogeny c) Phylogeny d) Paleontology
7. Paratope is an
 a) Antibody binding site on variable regions
 b) Antibody binding site on heavy regions
 c) Antigen binding site on variable regions
 d) Antigen binding site on heavy regions
8. Cyclosporin A is an immunosuppressive drug produced from _____.
 a) Aspergillus niger b) manascus purpureus
 c) Penicillium notatum d) Trichoderma polysporum

SECTION - II**Note : Answer any 4 questions.****4×2=8**

9. What is Capacitation?
10. What are the prevention of STDs.
11. What are Holantric genes?
12. Give reasons : Genetic Code in universal?
13. What is called Connecting link? with example.
14. How is milk Converted in to Curd? Explain the Process of Curd formation?

SECTION - III**Note : Answer any three Questions Q.No.19 is compulsory. 3×3=9**

15. List out the various Male reproductive glands & mention their secretion.
16. What are the applications of karyotyping.
17. What is called Operons?
18. List out the major gases seems to be found in the primitive earth?
19. List out chemical alarm signals produced during inflammation?

SECTION - IV**Note : Answer all the Questions.****2×5=10**

20. Explain the various phases of the menstrual cycle.

(OR)

Give the salient of Human Genome project?

21. Explain the Urey - Miller's experiment with diagram.

(OR)

Explain the structure of immunoglobulin with suitable diagram.
