

SECOND REVISION EXAMINATION - 2024

Time Allowed : 3.00 Hours]

BIOLOGY

[Max. Marks : 70

Part - I (Bio-Botany) (Marks : 35)

Section - 1

Note. (i) Answer All the questions.

8×1=8

(ii) Choose the most appropriate answer from the given four alternatives and write the option code and corresponding answer.

- Coleorhiza is found in
a) Paddy b) Beans c) Pea d) Tridax
- Find the mismatch pair.
a) Golden Rice - Oryza Sativa
b) Poly Hydroxy butrase - Decayed Polymer
c) Poly Lactic acid - Undecayed
d) Green Fluorescence Protein - Aquaria Victoria
- Quinine is obtained from
a) Digitalis b) Papaver c) Capsicum d) Cinchona
- The active principle trans - terra - Hydro canabial is present in
a) Opium b) Curcuma c) Marijuana d) Andrographis
- In soil water available for plants is
a) Gravitational water b) Chemically bound water
c) Capillary water d) Hygroscopic water
- Forest man of India is
a) M.S Swaminathan b) Nel Jayaraman c) Jadav molai payeng d) Maheswari
- Choose the correct pair
a) Mass selection - Involve of nature
b) Pureline selection - Repeated self pollination
c) Clonal selection - Sexually propagated crop
d) Natural selection - Morphological characters
- Which of the following Ecosystem has the highest primary productivity?
a) Pond Ecosystem b) Lake Ecosystem
c) Grass Land Ecosystem d) Forest Ecosystem

SECTION - 2

Note : Answer any four questions.

4×2=8

- What is Endothecium?
- What are Multiple Alleles.
- Name the chemicals used in Gene Transfer.
- What do you mean Embryoids?
- Define Edge Effect.
- Differentiate Bio medicines and Botanical Medicines.

SECTION - 3

Note : Answer any three questions. Question No. 19 is compulsory.

3×3=9

- What is Parthenocarpic Fruits and its Significance.
- Define Syntenic Genes.
- Expand CCS.
- Draw and label the parts of Insectivorous Plant?
- What is Ecological Pyramids? and its types.

SECTION - 4

Note : Answer all the questions.

2×5=10

- (a) Write the characteristics of Anemophilous Flowers.
(OR)
(b) What is Bio Remediation? Give some examples of Bio Remediation?
- (a) What is Epiphytic Plants? and List out the morphological characters of Epiphytes.
(OR)
(b) What are Psychoactive drugs? Add a note Marijuana and Opium.

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 8x1=8

1. The male homologue of the female Clitoris is
a) Scrotum b) Penis c) Urethra d) Testis
2. The vitamin A responsible for the normal functions of reproductive organs
a) A b) C c) D d) E
3. The total number of Nitrogenous bases in Human Genome is estimated to be about
a) 3.5 million b) 35,000 c) 35 million d) 3.1 billion
4. The Golden age of Reptiles was
a) Mesozoic Era b) Cenozoic Era c) Paleozoic Era d) Proterozoic Era
5. Allergy involves
a) IgE b) IgG c) IgA d) IgM
6. Animals that can move from fresh water to sea called as
a) Stenothermal b) Eurythermal c) Catadromons d) Anadromous
7. Which of the following are at high risk extinction due to habitat destruction.
a) Mammals b) Birds c) Amphibians d) Echinoderms
8. Founder of the Ecological foundation "Vaangam" is
a) Dr. Sultan Ismail b) Ko. Nammazhvar
c) Charles Darwin d) Hugo - d - viris

SECTION - II

Note : Answer any four of the following questions.

4x2=8

9. Differentiate Foeticide and Infanticide.
10. What are Holandric Genes?
11. State one gene one enzyme Hypothesis.
12. Why do you think it is not possible to produce Vaccine against 'Common Cold'?
13. What is genetically engineered Insulin?
14. What is Surrogacy?

SECTION - III

Note : Answer any three of the following questions. Q.No: 19 is compulsory.

3x3=9

15. How is Juvenile phase different from Reproductive Phase.
16. Draw and label the diagram of a matured Sperm Cell.
17. What is Mass Extinction?
18. Write any three applications of Karyotyping?
19. Differentiate Somatic Cell Gene Therapy and Germinal Gene Therapy.

SECTION - IV

Note : Answer all the questions.

2x5=10

20. (a) Explain the following:
- i) Tubectomy
 - ii) Vasectomy
 - iii) Write any three reasons for Infertility.

(OR)

(b) Explain the Structure of HIV Virus with a neat labelled diagram.

21. (a) Mention the Advantages and Disadvantages of Cloning.

(OR)

(b) What are Radioactive Wastes? and Write the methods of disposal of Radio Active Wastes.