

Class : 12

Register  
Number

# FIRST REVISION EXAMINATION - JANUARY - 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.

- Which one of the following is the Column of sterile tissue surrounded by the anther lobe.  
a) Perioplasmodium    b) Anther Caving    c)  Connective Tissue    d) Tapetum
- Match the following  
1. Dominant Epistasis    -    i) 9 : 7  
2. Duplicate Genes    -    ii) 12 : 3 : 1, 1  
3. Recessive Epistasis    -    iii) 15 : 1  
4. Complementary genes    -    iv) 9 : 3 : 4  
a) 1 - iv, 2 - i, 3 - ii, 4 - iii    b) 1 - ii, 2 - iii, 3 - iv, 4 - i  
c) 1 - i, 2 - ii, 3 - iii, 4 - iv    d) 1 - iii, 2 - iv, 3 - ii, 4 - i
- Solar Energy used by green plants for Photosynthesis is only  
a) 2 - 9 %    b) 2 - 8%    c)  2 - 10%    d) 3 - 10%
- Which Medicinal Plant is called as the "King of Bittes"?  
a)  Nilavembu    b) Tulsii    c) Adathodai    d) Turmeric
- Which of the following is not a Physical Mutagen?  
a) Gamma rays, Neutron    b)  Magnous, Eosin  
c) Alpha rays, Beta rays    d) Cosmic rays, UV rays
- Which of the following is not a Sedimentary Cycle?  
a) Sulphur Cycle    b)  Nitrogen Cycle    c) Calcium Cycle    d) Phosphorous Cycle
- One Greenhouse gas contributes 14% of total Global Warming and another contributes 60% these are respective identified as  
a)  CH<sub>4</sub> and CO<sub>2</sub>    b) N<sub>2</sub>O and CO<sub>2</sub>    c) CH<sub>4</sub> and CFC    d) CFC and CO<sub>2</sub>
- The Oldest and basic method of Plant Breeding is  
a) Introduction    b)  Selection    c) Hybridization    d) Mutation Breeding

### SECTION - 2

Note : Answer any four questions.

4x2=8

- What is Stomium?
- Define Hybrid Vigour.
- What is Bio Remediation?
- Define Ecology.
- What is Ozone hole?
- Write the uses of Teak.

### SECTION - 3

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

3x3=9

- Draw and label the parts of the Structure of Embryo Sac.
- Differentiate between Linkage and Crossing Over.
- How will you identify a Vectors?
- What is Vivipary? Name a plant group which exhibits Vivipary?
- What is Protein Bank?

### SECTION - 4

Note : Answer all the questions.

2x5=10

- (a) Discuss the steps involved in Microsporangogenesis?  
(OR)  
(b) Differentiate Incomplete Dominance and Co - Dominance.
- (a) What are the advantages of Seed Dispersal?  
(OR)  
(b) Explain the preparation of Bio Pest Repellant.

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PART - II ( BIO-ZOOLOGY) (Max. 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 8x1=8

- In Which mode of Reproduction variation are seen  
a) Asexual b) Parthenogenesis c) Sexual d) Both a and b
- The Foetal membrane that form the basis of the Umbilical Cord is  
a) Allantois b) Amnion c) Chorion d) Yolk Sac
- Fetoscope is used to monitor the foetal heart rate.  
a) Doppler Device b) Stethoscope  
c) Sphicmemanometer d) Thermometer
- Which of the following Phenotypes in the Progeny are possible from the parental combination AxB?  
a) A and B only b) A,B and AB only c) AB only d) A,B, AB and O
- Which period was called "Age of Fishes"?  
a) Permian b) Triassic c) Devonian d) Ordovician
- AIDS VIRUS was  
a) Single stranded DNA b) Double Stranded RNA  
c) Single stranded RNA d) Double stranded DNA
- Dolly, the sheep was obtained by a Technique known as  
a) Cloning be Gene Transfer b) Cloning without the help of gametes  
c) Cloning by nuclear transfer d) Parasitism
- Which of the following forests is known as the lungs of the planet earth.  
a) Tundra Forest b) Rain forest of north east India  
c) Taiga forest d) Amazon rain forest

SECTION - II

Note : Answer any four of the following questions.

4x2=8

- Expand the following  
a) ZIF b) ICSI
- What is Criss - Cross Inheritance?
- Differentiate - Morphallaxis and Epimorphosis?
- What is the Importance of POCSO?
- "Red - Data book" what you know about it?
- Define - Zymology?

SECTION - III

Note : Answer any three of the following questions. Q.No: 18 is compulsory.

3x3=9

- Differentiate Foeticide and Infanticide?
- What are the Objection to Darwinism any three points?
- What are Inteferons? Mention their role?
- List the adaptations seen in Terrestrial animals?
- What are the differences in between the Totipotency and Pluripotency?

SECTION - IV

Note : Answer all the questions.

2x5=10

- (a) Explain the role of Oxytocin and Relaxin in Parturition and Lactation?

(OR)

(b) Give salient features of Human Genome Project?

- (a) Explain Nuclear transfer Technique using Simple Schematic representation.

(OR)

(b) The Taxonomic impediment makes us unaware of the magnitude of Bio diversity substantiate your answer with reference to Indian Sub Continent. What are the measures one can adopt to conserve the same.