

<b>FIRST REVISION TEST - 2024</b>	<b>Exam No.</b>						
<b>Time : 3-00 Hours</b>	<b>XII - BIOLOGY</b>			<b>Marks : 70</b>			

**Note :** Candidate should answer Part-I (Bio-Botany) & Part-II (Bio-zoology) in separate answer-books.

**(PART - I) BIO - BOTANY (Marks:35)**

**SECTION - I**

**Note: 1) Answer all the questions.**

**2) Choose the correct answer.**

**(8x1=8)**

- Transmitting tissue is found in
  - Micropylar region of ovule
  - Pollen tube wall
  - Stylar region of gynoecium
  - Integument
- Fruit colour in squash is an example of
  - Recessive epistasis
  - Dominant epistasis
  - Complementary epistasis
  - Inhibitory genes
- In which technique Ethidium Bromide is used
  - Southern blotting techniques
  - Western blotting techniques
  - Polymerase chain reaction
  - Agrose gel electroporosis

**4. Match the following.**

**Column A**

**Column B**

- |                      |   |  |
|----------------------|---|--|
| 1. Totipotency       | - | A. Reversion of mature cells in meristem                 |
| 2. Dedifferentiation | - | B. Biochemical and structural changes of cells           |
| 3. Explant           | - | C. Properties of living cells develops into entire plant |
| 4. Differentiation   | - | D. Selected plant tissue transferred to culture medium   |

	1	2	3	4
a)	C	A	D	B
b)	A	C	B	D
c)	B	A	D	C
d)	D	B	C	A

- Which of the given plant produces cardiac glycoside?
  - Calotropis
  - Acacia
  - Nepenthes
  - Utricularia
- Ecosystem consists of
  - Decomposers
  - Producers
  - Consumers
  - All of the above
- With respect to Eichhornia
 

**Statement A:** It drains off oxygen from water and is seen growing in standing water

**Statement B:** It is an indigenous species of our country

  - Statement A is correct and statement B is wrong
  - Both statement A and B are correct
  - Statement A is wrong and statement B is correct
  - Both statement A and B are wrong
- Groundnut is native of
  - Philippines
  - India
  - North America
  - Brazil

**SECTION - II**

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

**(4x2=8)**

- What is Polyembryony?
- What are multiple alleles?
- Define sterilization.
- What is Ozone hole?
- Differentiate primary introduction from secondary introduction.
- Construct the food chain with the following data.  
Hawk, Plants, Frog, Snakes, Grasshopper

**SECTION - III**

**Note: Answer any three of the questions. Question No.18 is compulsory.**

**(3x3=9)**

- Distinguish mound layering and air layering.
- Write the importance of crossing over.
- Write the advantages of herbicide tolerant crops.
- What is thermal stratification? Mention their types.
- Write a note on heterosis?

**SECTION - IV**

**Note: Answer all the following questions.**

**(2x5=10)**

- Discuss the steps in Microsporogenesis.
  - Explain the stages of Protoplast culture.
- What is soil profile? Explain the characters of different soil horizons?
  - What are the King and Queen of species? Explain about them and their uses.

12-Biology-1

**(PART - I) BIO - ZOOLOGY (Marks:35)****SECTION - I****Note: 1) Answer all the questions. 2) Choose the correct answer. (8x1=8)**

- The mode of sexual reproduction in bacteria is by
  - Formation of gemetes
  - Endospore formation
  - Conjucation
  - Zoospore formation
- Select the incorrect action of hormonal contraceptive pills from the following
  - Inhibition of spermatogenesis
  - Inhibition of ovulation
  - Changes in cervical mucus impairing its ability to allow passage and transport of sperms
  - Alternation in uterine endomatrium to make it unsuitable for implantation
- "Universal Donar" and Universal Recipients blood group are
  - A, B, O
  - O, AB
  - A, B
  - B, A
- Which of the following is the correct sequence of event with reference to the central dogma?
  - Transcription, Translation, Replication
  - Transcription, Replication, Translation
  - Duplication, Translation, Transcription
  - Replication, Transcription, Translation
- The Neanderthal man had the brain capacity of
  - 650-800cc
  - 1200cc
  - 900cc
  - 1400cc
- Match the pathogens with respective disease cause.**

A. Malignant tertian malaria	- i) Flavi virus
B. Kala-azar	- ii) Leishmania donavani
C. Dengue fever	- iii) Rubeola virus
D. Measles	- iv) P. Falciparam

A) A) ii B) iii C) i D) iv
B) A) iv B) i C) ii D) iii
C) A) iv B) ii C) i D) iii
D) A) iii B) iv C) ii D) ii
- Predation and parasitism are which type of Interactions
  - (+, +)
  - (+, 0)
  - (-, -)
  - (+, -)
- Which one of the following are high risk extinction due to habitat destruction
  - Mammals
  - Birds
  - Amphibians
  - Echinoderms

**SECTION - II****Note: Answer any four of the following questions. (4x2=8)**

- Scrotum acts as a thermo regulator for Spermatogenesis why?
- State one gene - one enzyme hypothesis.
- 11. Expand the following:** a) CFC b) AQI c) PAN
- What is Red data book? Mention its purposes.
- What is Acclimatisation?
- What are transgenic animals give examples?

**SECTION - III****Note: Answer any three of the questions. Question No.18 is compulsory. (3x3=9)**

- Define the Amniocentesis.
- Mention the symptoms of phenylketonuria.
- Draw and label antibody structure.
- A 10 year old child is suffering from chicken pox. Is this infection good or bad. Give reason for your answer.
- Who disproved Lamarck's theory of acquired character? How?

**SECTION - IV****Note: Answer all the following questions. (2x5=10)**

- Explain the various phases of the menstrual cycle.
  - Explain the mode of sex determination in honey bees.
    - Why the human genome project is called a mega project?
- Explain why cloning of Dolly, the sheep was such a major scientific break through.
    - Mention the disadvantages of cloning.
  - Differentiate between Eurytherms and Stenotherms.
    - List out any three causes for biodiversity losses.