



Standard 12

BIOLOGY

Part - A (Bio-Botany)

Section - A

Time: 1.30 Hours

Marks: 50

Marks: 25

I. Choose and write the correct answer with option code: 5×1=5

- 1) Transmitting tissue is found in
 - a) Micropylar region of Ovule
 - b) Pollen tube wall
 - c) Stylar region of gynoecium
 - d) Integument
- 2) Find out the correct pair
 - a) Duplicate genes - 15 : 1
 - b) Supplementary genes - 9 : 7
 - c) Inhibitor genes - 9 : 3 : 4
 - d) complementary genes - 13 : 3
- 3) An allohexaploidy contains:
 - a) six different genomes
 - b) six copies of three different genomes
 - c) Two copies of three different genomes
 - d) Six copies of one genomes
- 4) What is the phenotype of wheat kernal colour for the geno type: $R_1 R_2 r_1 r_2$
 - a) Dark red
 - b) Medium dark red
 - c) Medium red
 - d) light red
- 5) Circinotropous Ovule is found in the family
 - a) Primulaceae
 - b) Alismataceae
 - c) Cactaceae
 - d) Leguminosae

Section - B**II. Answer any three questions: 3×2=6**

- 6) What are multiple Alleles?
- 7) Draw diagram of Hemianatropous Ovule with an example
- 8) Give the names of the scientists who rediscovered Medelism
- 9) What is Stomium?
- 10) Differentiate continous variation with discontinuous variation. (Any three points)

Section - C**III. Answer any three questions: 3×3=9**

- 11) What are the reason for Mendel's Success in his breeding experiment?
- 12) Write the gene mapping uses
- 13) What is endothelium?
- 14) How to do test for homozygosity of a trait in plants?
- 15) List out the any three functions of Tapetum.

Section - D**IV. Answer the following questions: 1×5=5**

- 16) Explain Incomplete Dominance with an example

What is endosperm? Explain the types.

Part - A (Bio-zoology)
Section - A

Marks: 25

I. Answer all the questions:

5×1=5

- 1) The most important hormone in initiating and maintaining lactation after birth is
 - a) Oestrogen
 - b) FSH
 - c) Prolactin
 - d) Oxytocin
- 2) A contraceptive pill prevents ovulation by
 - a) Blocking Fallopian type
 - b) Inhibiting release of FSH and LH
 - c) Stimulating release of FSH and LH
 - d) causing immediate degeneration of released ovum
- 3) In which mode of reproduction variations are seen
 - a) Asexual
 - b) Parthenogenesis
 - c) Sexual
 - d) Both A and B
- 4) The Androgen binding protein is produced by
 - a) Leydis cells
 - b) Hypothalamus
 - c) Sertolicells
 - d) Pituitary gland
- 5) Match Column I with Column II and select the correct option from the codes given below

Column I

- A. Copper releasing IUD
 B. Hormone releasing IUD
 C. Non medicated IUD
 D. Minipills
 a) A(iv) B(ii) C(i) D(iii)
 c) A(i) B(iv) C(ii) D(iii)

Column II

- i) LNG
 ii) Lippes loop IUD
 iii) Saheli
 iv) Multiload - 375
 b) A(iv) B(i) C(iii) D(ii)
 d) A(iv) B(i) C(ii) D(iii)

Section - B**II. Answer any three of the following questions:**

3×2=6

- 6) Write about the outer layer of embryonic membrane?
- 7) What is Prostatitis?
- 8) What is Apolysis? Write about that significance?
- 9) Write any two studies that diagnose cervical cancer.
- 10) Write about a sexual reproductive system in Aurelia

Section - C**III. Answer any three of the following questions:**

3×3=9

- 11) How is Polyspermy avoided in human?
- 12) Write about Exogenous budding with example?
- 13) What is chorionic villus sampling?
- 14) Amniocentesis, the foetal sex determination test, is banned in our country. Is it necessary? Comment
- 15) Write the significance of ferguson reflex?

Section - D**IV. Answer the following questions:**

1×5=5

- 16) a) Write the sexually transmitted diseases caused by bacteria and their symptoms

(OR)

- b) Name the gemete cell that fertilizes the ovum in human end draw and explain its structure? And draw the diagram of spermatogenesis?