

**Standard 12**

Time: 1.30 Hrs.

**BIOLOGY**

Marks: 35

**BIO - BOTANY**

Marks: 18

**SECTION - I****I. Choose the best answer:****3×1=3**

- 1) First cell of male gametophyte is
 

a) Microspore	b) Megaspore
c) Nucleus	d) Primary endosperm nucleus
- 2) Transmitting tissue is found in
 

a) Micropylar region of ovule	b) Pollen tube wall
c) Stylar region of gynoecium	d) Integument
- 3) Which one of the pollination is adopted for majority of angiosperms?
 

a) Ornithophily	b) Entomophily
c) Hydrophily	d) Anemophily

**SECTION - II****II. Answer any three of the following:****2×2=4****Question No. 4 compulsory question.**

- 4) What are clones?
- 5) Draw the structure of embryo sac and label it.
- 6) Give the names of the scientists who rediscovered Mendelism.

**SECTION - III****III. Answer any three of the following:****2×3=6****Question No. 7 compulsory question.**

- 7) Draw the structure of monocot seed and label it.
- 8) Enumerate the characteristic features of entomophilous flowers.
- 9) What is meant by cytoplasmic inheritance?

**SECTION - IV****IV. Answer the following question:****1×5=5**

- 10) What is endosperm? Explain the types.

**(OR)**

Explain the experiment done by Carl Correns with example.

Ts-12Bio

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**BIO - ZOOLOGY**

Marks: 18

**SECTION - I****Answer all the questions:****3×1=3**

- 1) Paedogenetic parthenogenesis occurs in
  - a) Aphid
  - b) Honey bees
  - c) Solenobia
  - d) Gall Fly
- 2) Four children of a couple have blood groups A, B, AB, O what could be the genotype of the parents.
  - a)  $I^A I^A \times I^B I^B$
  - b)  $I^A I^O \times I^A I^B$
  - c)  $I^A I^O \times I^B I^O$
  - d)  $I^O I^O \times I^A I^B$
- 3) **Match the following:**

i) Gonorrhoea	-	A) 10-90 days
ii) Syphilis	-	B) 1-8 months
iii) Genital warts	-	C) 30-80 days
iv) Hepatitis	-	D) 2-5 days

  - a) (i) A (ii) B (iii) D (iv) C
  - b) (i) B (ii) C (iii) D (iv) A
  - c) (i) C (ii) D (iii) A (iv) B
  - d) (i) D (ii) A (iii) B (iv) C

**SECTION - II****Answer any two of the following questions:****2×2=4**

- 4) What is Inhibin? State its functions.
- 5) What is Mayer-Rokitansky syndrome.
- 6) Why honey bees parthenogenetic reproduction is referred as incomplete parthenogenesis?

**SECTION - III****Answer any two of the following questions:****2×3=6****Question No. 9 is compulsory.**

- 7) Write the symptoms of pataus syndrome.
- 8) Distinguish between heterochromatin and Euchromatin.
- 9) Write three causes of infertility in human beings.

**SECTION - IV****Answer any one of the following questions:****1×5=5**

- 10) Explain the process of spermatogenesis in Human beings with a schematic representation. **(OR)**  
 What is Colour Blindness?  
 How X linked gene inherited in the marriage between hemizygous recessive male and normal visioned woman?

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