

2023-24

Time - 3 hours

Full Marks - 60

Answer all groups as per instructions.

Figures in the right hand margin indicate marks.

*Candidates are required to answer
in their own words as far as practicable.*

Draw labelled diagrams wherever necessary.

GROUP - A

1. Fill in the blanks. (all) [1 × 8]
- (a) As the generative cell passes down the pollen tube it divides into two _____.
- (b) The innermost layer of the Anther wall surrounding the sporogenous tissue forms _____.
- (c) In case of _____ flowers, they never open and ensure self pollination.
- (d) Dicotyledonous seeds generally have thick and hard seed coat called _____.
- (e) In majority of angiosperms the mature female gametophyte is _____ celled.

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- (f) Formation of embryosac without reduction division is called _____.
- (g) When pollen tube enter into the ovule through the integuments is called _____.
- (h) MGU stands for _____.

GROUP - B

2. Write notes on any eight of the following within two or three sentences each. [1½ × 8]

- (a) Pollen sac
- (b) Pollinia
- (c) Pollen viability
- (d) Egg apparatus
- (e) Dichogamy
- (f) Anatropous ovule
- (g) Liquid Endosperm
- (h) Structure of seed
- (i) False polyembryony
- (j) Mosaic Endosperm

[3]

GROUP - C

3. Write notes on any eight of the following within 75 words each.

[2 × 8]

- (a) Palynology
- (b) NPC system
- (c) Microsporogenesis
- (d) Nucellus
- (e) Embryosac
- (f) Zoophily
- (g) Mixed pollination
- (h) Merits of cross pollination
- (i) Suspensor cell
- (j) Non-recurrent Apomixis

GROUP - D

4. Answer any four of the following within 500 words each. [6 × 4]

- (a) Describe the structure and functions of Anther wall.
- (b) Describe the structure and types of ovules found in plants.

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- (c) What is Embryo sac ? Describe in detail about the formation and structure of a typical Embryo sac.
- (d) Describe the mechanism of Double Fertilisation in angiosperms.
- (e) Describe the formation of nuclear type and cellular type of Endosperm.
- (f) Describe different types of Apomixis and their significance.
- (g) Describe various mechanisms of dispersal of seed.