

480/Bot

UG/3rd Sem/BOT(H)CC-07-T/19

U.G. 3rd Semester Examination - 2019

BOTANY

[HONOURS]

Course Code : BOT(H)CC-07-T

(Reproductive Biology of Plants)

Full Marks : 40

Time : $2\frac{1}{2}$ Hours

The figures in the right-hand margin indicate marks.

Candidates are required to give their answers in their own words as far as practicable.

Answer all the questions.

1. Answer any **five** of the following : $2 \times 5 = 10$
- a) Define microgametogenesis.
 - b) What is gametophytic self incompatibility?
 - c) Diagrammatically represent tetrasporic development of embryo sac.
 - d) What is cleavage polyembryony?
 - e) Mention scope of Aeropalynology.
 - f) How double fertilization takes place in Angiosperms?

[Turn over]

- g) Why orientation of polarity is an important criterion for identification of pollen grain?
- h) What is cybrid?
2. Answer any **two** from the following : $5 \times 2 = 10$
- a) Elucidate genetic aspects of flower development.
 - b) Outline general pattern of monocot embryo development.
 - c) What is suspensor? Elucidate structure of suspensor. $1+4$
 - d) With labelled diagram represent organization and ultrastructure of embryo sac.
3. Answer any **two** from the following : $10 \times 2 = 20$
- a) What is NPC system of pollen classification? Explain NPC classification with special reference to three digit number. $2+8$
 - b) Justify the statement "Flower is a modified determinate shoot." 10
 - c) Define Apomixis. Outline classification of types of apomicts. Mention its significance. $2+5+3$
 - d) Define endosperm. Discuss with example the relationship between embryo and endosperm. $2+8$