

U.G. 5th Semester Examination - 2021**BOTANY****Course Code : BBOTCCHC501****Course Title : Reproductive Biology of Angiosperms**

Full Marks : 30

Time : 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.*1. Answer any **ten** questions from the following:

1×10=10

- a) What is perine?
- b) Who is called the father of Indian embryology?
- c) Define gynophore.
- d) Define pollinia.
- e) What do you mean by pseudomonads?
- f) Define tricolpate pollen.
- g) What is tapetum?
- h) Define triple fusion.
- i) Name a chemical that is used to modify stigmatic surface of a flower.

- j) What is cybrid?
- k) Name a plant where embryo develops from synergid.
- l) What is aril?
- m) What is meant by helobial type of endosperm development?
- n) What is apospory?
- o) What is false polyembryony?

2. Answer any **five** questions from the following:

2×5=10

- a) Mention the role of synergids.
- b) How can you test pollen viability?
- c) Distinguish between anemophily and entomophily.
- d) Draw a labelled diagram of an anatropous ovule.
- e) How gametophytic self-incompatibility differs from sporophytic self-incompatibility?
- f) What is cryopreservation?
- g) What is cleavage polyembryony. Cite an example of its occurrence. 1+1
- h) Write a short note on recurrent apomixis.

3. Answer any **two** questions from the following:

5×2=10

- a) Describe briefly the various mechanisms that promote cross pollination.
- b) Write down the step-wise methods by which a somatic hybrid can be generated.
- c) Explain briefly the process of megagametogenesis in *Polygonum* sp. with suitable labelled diagram.
