

**B.Sc. 5th Semester (Honours) Examination, 2019-20****BOTANY****Course ID : 51311****Course Code : SH/BOT/501/C-11**

Course Title: Reproductive Biology of Angiosperm and Palynology

**Time: 1 Hour 15 Minutes****Full Marks: 25**

*The figures in the margin indicate full marks.  
Candidates are required to give their answers in  
their own words as far as practicable.*

1. Answer *any five* of the following: 1×5=5
- (a) What is monosporic embryo sac?
  - (b) What is forensic palynology?
  - (c) What do you mean by double fertilization?
  - (d) Define 'zonotreme' type of pollen.
  - (e) What is Polyembryony?
  - (f) Distinguish between autogamy and allogamy.
  - (g) What are pollinia?
  - (h) What do you mean by para-sexual hybridization?
2. Answer *any two* of the following: 5×2=10
- (a) Briefly describe the pollen wall structure. What is polyad? 4+1=5
  - (b) Define Xenogamy. Describe different contrivances for self pollination. 2+3=5
  - (c) What is callose? Briefly describe the significance of callose deposition. 2+3=5
  - (d) Who first coined the term 'Apomixis'? What are the different types of Apomixis? 1+4=5
3. Answer *any one* of the following: 10×1=10
- (a) Discuss in detail the different types of endosperm development with suitable example. What is anatropous ovule? 8+2=10
  - (b) Briefly describe the process of microsporogenesis with suitable diagram. What is NPC system of classification in pollen? 7+3=10
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