



WEST BENGAL STATE UNIVERSITY  
B.Sc. Honours 2nd Semester Examination, 2020



**BOTACOR04T-BOTANY (CC4)**

**ARCHEGONIATE**

Time Allotted: 2 Hours

Full Marks: 40

*The figures in the margin indicate full marks.  
Candidates should answer in their own words and adhere to the word limit as practicable.  
All symbols are of usual significance.*

1. Answer the following questions briefly: 1×6 = 6
  - (a) What are epicranoid peristome teeth?
  - (b) What is a gemmae cup?
  - (c) What is incipient heterospory?
  - (d) What are mesomes?
  - (e) What do you mean by haplocheilic stomata?
  - (f) Name a gymnosperm with pycnoxylic wood.
  
2. Answer any **eight** questions from the following: 3×8 = 24
  - (a) Write an account on the dehiscence of *Sphagnum* capsule.
  - (b) Mention some of the unique features of the internal organization of *Anthoceros* thallus.
  - (c) What is the fate of Endothecium and Amphithecium in *Marchantia*, *Anthoceros* and *Sphagnum*?
  - (d) Distinguish between chloronema and caulonema of *Funaria*.
  - (e) Highlight the peculiar features of the internal organisation of *Equisetum* stem.
  - (f) Write two characters of *Cooksonia*. Name two species of this primitive land plant. 2+1
  - (g) Mention the land adaptive features of *Rhynia*.
  - (h) Differentiate between Homocophyllum and Heterophyllum of *Selaginella* sp.
  - (i) Write in brief the internal structure of *Pinus* stem.
  - (j) Draw and label the T. S. of *Cycas* leaflet. 2+1
  - (k) Write a short note on the economic importance of gymnosperms mentioning the name of the plant species. 2+1
  - (l) Draw and label the male strobilus of *Gnetum* sp. 2+1
  
3. Answer any **two** questions from the following: 5×2 = 10
  - (a) Describe the leafy gametophyte of *Porella* with illustration. Distinguish between metzgerinae and jungermanninae. 2+2+1

- (b) Describe the prothallus of *Pteris* with illustration. 3+2
- (c) State the evolution of sporophyll in Lycopsidea with the help of Telome theory. 5
- (d) Distinguish between polyembryony and cleavage polyembryony. Give example. 4+1

**N.B. :** *Students have to complete submission of their Answer Scripts through E-mail / Whatsapp to their own respective colleges on the same day / date of examination within 1 hour after end of exam. University / College authorities will not be held responsible for wrong submission (at in proper address). Students are strongly advised not to submit multiple copies of the same answer script.*

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