



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 Homoeophyllum 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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