

City College

Intermediate Examination for CBCS (online) 2020

DEPARTMENT OF BOTANY

SEMESTER: I I

Course: HONOURS (Theory)

Full Marks : 50

Paper: BOT- A-CC-2-4-TH

Date and Time :14/12/2020;

11.00 am to 03.00 pm

Email ID for Answer script submission (a single PDF file):

botanycity.s2hons@gmail.com

Group A. ( Internal Assessment).

10 Marks

1. Answer the following questions:. (Any two ). 2X5=10
- a) Write a short note on Ecological Importance of bryophytes on plant succession.(any two fields )
  - b) Write down the reproductive features of *Archaeopteris sp.*
  - c) Write a note on the economic importance of Pteridophytes.
  - d) Write about the evolutionary adaptive modifications of early vascular land plants.
  - e) Write a note on the economic importance of Gymnosperms with reference to wood and drugs.

Group B. ( Theory).

25 Marks

2. Answer the following questions ( Any One ):. 1X5= 5
- a) State advanced evolutionary trends of *Anthoceros sp.* sporophyte .(any two points).
  - b) Write about the morphological nature of 'rhizophore' of *Selaginella sp.*
  - c) Write a note on gametophyte of *Psilotum sp.*
3. Answer the following questions :. (Any two). 2X10= 20
- a) Draw and describe the structure of female gametophyte of *Cycas sp.* Write down the angiospermic characters of *Gnetum sp.* 6+4
  - b) Draw and describe the morphological structure ( internal ) of *Anthoceros sp* sporophyte or *Marchantia sp* sporophyte.
  - c) What is Telome? What are the different evolutionary processes? Discuss in brief with the diagrams the evolution of sporophyll in Lycopsida and sporangiochore in Sphenopsida. 1+2+3.5+3.5

- d) What is heterospory. Trace the origin of seed habit from heterosporous condition. 2+8
- e) Compare the male and female gametophytes of *Pinus* sp and *Cycas* sp.

**Group C. ( Practical )**

**15 Marks**

4. Answer the following questions (**Any three**) :

**3X5=15**

a) Draw and label the T.s. and L.s. of strobilus of *Equisetum*.

b) Draw and label the microsporophyll and megasporophyll of *Cycas* sp.

2.5 + 2.5

c) Write down the identifying features of L.S. through Gemma cup of *Marchantia* sp. and antheridiophore of *Marchantia* sp. 2.5+2.5

d) Draw and label the L.S. of male cone of *Gnetum* sp and L.S. of female strobilus of *Ginkgo* sp. 2.5+2.5

e) Write three identifying characters each of sporophyte of *Riccia* sp. and L.S. through capsule of *Funaria* sp. 2.5 + 2.5

f) Draw and label the L.S. of strobilus of *Lycopodium* sp. and write its identifying features. 2.5 + 2.5