38

304747

D 31103

(Pages : 2) Name.....

Reg. No.....

THIRD SEMESTER M.Sc. DEGREE (REGULAR/SUPPLEMENTARY) EXAMINATION, NOVEMBER 2022

(CBCSS)

Botany

BOT3C09—BIOTECHNOLOGY AND BIO-INFORMATICS

(2019 Admission onwards)

Time : Three Hours Maximum : 30 Weightage

Part A

I. Write short notes on any *four* questions (Each answer not to exceed five sentences) :

1 What is suspension culture ? What are the strategies adopted to measurement of growth of cells in suspension culture ?

2 What are somatic hybrids ? How they are produced ?

3 What is cDNA library ? Write major steps to construct cDNA library.

4 Define IPR and patent.

5 What are BioMed central and PubMed central ?

6 What is composite protein databases ? Name two composite protein databases you have been studied.

7 Define pharmacogenomics and chemo informatics.

(4 × 2 = 8 weightage)

Part B

II. Answer any *four* of the following (Each answer not exceed 250 words) :

8 Define cryopreservation. Explain steps involved in cryopreservation.

9 Define chromosome walking. How it differs from chromosome jumping ?

10 Illustrate Gilbert and Maxam method of DNA sequencing.

11 Outline principle and applications of PCR.

12 Give an account of biosafety standards.

Turn over

13 Explain contributions of free software foundation

14 What is multiple alignment technique ? Add a note on databases of multiple alig

(4 × 3 = 12 weig

Part C

III. Answer any *two* questions. (Each answer not to exceed 500 words) :

15 Give an elaborate account on composition and preparation of plant tissue culture

16 What is blotting ? Explain various blotting techniques you have been studied. Use illustrations.

17 Discuss various strategies adopted to produce transgenic plants.

18 What are protein sequence databases ? Discuss features of different protein databases you have been studied.

(2 × 5 = 10 wei