39

D 90976

(Pages : 2)

Name.....

Reg. No.....

THIRD SEMESTER M.A./M.Sc./M.Com. DEGREE (REGULAR) EXAMINATION NOVEMBER 2020

(CBCSS)

Botany

BOT 3C 09—BIOTECHNOLOGY AND BIOINFORMATICS

(2019 Admissions)

Time : Three Hours

Maximum : 30 Weightage

Section A

Answer at least **three** *questions.*
Each question carries 2 *weightage.*
All questions can be attended.
Overall Ceiling 6.

I. Each answer not to exceed five sentences :

1 What are major components of plant tissue culture media ?

2 What are synthetic seeds? How they are produced ?

3 What is antisense RNA technology ? Give an example that evolved through this technology.

4 Define gene piracy. Add note on patenting of GMOs.

5 Give expansion of HTTP, HTML, URL and WWW.

6 What is SWISS-PROT and EMBL ?

7 Define DNA microarrays. Write major applications.

(3 × 2 = 6 weightage)

Section B

Answer at least **three** *questions.*
Each question carries 4 *weightage.*
All questions can be attended.
Overall Ceiling 12.

II. Each answer not exceed 250 words:

8 Define bioreactor. Give an account on different types of bioreactors used in plant cell culture.

9 Prepare a flow chart showing step by step procedure in anther culture

10 Illustrate enzymatic method of DNA sequencing.

Turn over

11 Outline the creation of transgenic animals. Add a note on ethics of cloning.

12 What are terminator and traitor technologies ?

13 Give an account on free software foundation and their major contributions.

14 What are secondary databases ? Elaborate on different types of secondary databases.

(3 × 4 = 12 weightage)

Section C

Answer at least **two** *questions.*
Each question carries 6 weightage.
All questions can be attended.
Overall Ceiling 12.

III. Each answer not to exceed 500 words :

15 Give an elaborate account on applications of plant tissue culture.

16 Discuss steps involved in gene cloning.

17 Describe major achievements of genetic engineering by citing suitable examples you have been studied.

18 What are nucleic acid databases ? Discuss features of different nucleic acid databases

(2 × 6 = 12 weightage)