



MAR IVANIOS COLLEGE (AUTONOMOUS)
THIRUVANANTHAPURAM

Reg. No. :.....

Name :.....

First Semester Career Related B.Sc. Degree Examination, November 2014

First Degree Programme under CBCSS

Foundation Course – I: (for Botany and Biotechnology)

AUBB121: Methodology and Perspective of Biotechnology

Time : 3 Hours

Max. Marks : 80

SECTION – A

Answer ALL questions in a word or one or two sentences.

1. The name Kary Mullis is associated with which famous technique in Biotechnology ?
2. What is Biopiracy ?
3. Green fluorescent protein was first isolated from which organism ?
4. Name the bacteria known as natural genetic engineer of plants.
5. What is the name of the first inter – genetic somatic hybrids between potato and tomato ?
6. Give a definition for Biotechnology ?
7. Write down the full form of the following: (a) WIPO, (b) GM.
8. Which computer language is used for Artificial Intelligence ?
9. Which is the first web browser ?
10. What does ‘.com’ stand for ?

(10 x 1 = 10 Marks)

SECTION – B

Answer any EIGHT questions, not exceeding a paragraph.

11. What is bioinformatics ?
12. What is Golden Rice ? In what way it is different from the normal rice ?

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13. What is the name of the first gene transferred to crop plants for providing pest resistance ? From which source they were isolated ?
14. Explain the term “Bioethics”.
15. Is biotechnology really a new technology ? Express your idea.
16. What is the role of copyright in biotechnology ?
17. Two coins are tossed, find the probability that two heads are obtained. Note: Each coin has two possible outcomes H (heads) and T (Tails).
18. Name any four image / graphic file format ?
19. Explain briefly the Hybridoma Technology ?
20. What is Poisson distribution ?
21. A die is rolled, find the probability that an even number is obtained.
22. What is micropropagation of plants and why is it important ?

(8 x 2 = 16 Marks)

SECTION – C

*Short essay type : Answer any **SIX** questions.*

23. How is Biotechnology being used in agriculture and food production ?
24. Explain in detail IP and IPR ?
25. What are Trade secrets and Trademarks ?
26. What are the main areas of consideration for safety aspects in Biotechnology ?
27. Tickets numbered 1 to 20 are mixed up and then a ticket is drawn at random. What is the probability that the ticket drawn has a number which is a multiple of 3 or 5 ?
28. Describe four methods used to display summarized data, after a data collection.
29. What is meant by Statistical significance ? What is p – value ? Name any two common statistical tests, which can be interpreted using p – values.
30. Explain Good Laboratory Practice (GLP) ?
31. What is Research and why do we conduct Research ?

(6 x 4 = 24 Marks)

SECTION – D

*Long essay type : Answer any **TWO** questions.*

32. What is a patent and what are the advantages of getting a patent ? What are plant breeder’s rights ? What do you mean by patenting live forms ?

- 33. What are biofuels ? Why are they important ? Explain any four biofuels.
- 34. What are scientific instruments ? Explain any four scientific instruments used in Biotechnology.
- 35. Describe the following five industrial applications of Biotechnology.
 - a) Biopharmaceutics.
 - b) Gene therapy.
 - c) Genetically modified food crops.
 - d) Industrial Biotechnology.
 - e) Tissue engineering.

(2 x 15 = 30 Marks)
