

QP CODE: 20100505	Reg No	:	***************************************
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BSc DEGREE (CBCS) EXAMINATION, MARCH 2020

Sixth Semester

Core course - BO6CRT12 - BIOTECHNOLOGY AND BIOINFORMATICS

B.Sc Botany Model I,B.Sc Botany Model II Food Microbiology,B.Sc Botany Model II Environmental Monitoring And Management,B.Sc Botany Model II Plant Biotechnology

2017 Admission Onwards

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Time: 3 Hours Marks: 60

Part A

Answer any ten questions.

Each question carries 1 mark.

- 1. Name a synthetic auxin.
- 2. How can you sterilize the medium?
- 3. Comment on subculture.
- 4. What you meant by secondary metabolites?
- 5. Name a bead of gel that contains a somatic embryo.
- 6. Expand Ti plasmid.
- 7. What is agarose gel electrophoresis?
- 8. Which temperature range is used in refrigerated centrifuges?
- 9. What is the use of gel documentation system?
- 10. What is meant by HGP?
- 11. Expand BLAST.
- 12. Define molecular phylogeny.

 $(10 \times 1 = 10)$



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Part B

Answer any six questions.

Each question carries 5 marks.

- 13. Write a note on meristem culture and its significance.
- 14. What is embryo culture? Write down its applications.
- 15. Write down the uses of haploid plants.
- 16. What is the significance of protoplast cultures?
- 17. Write notes on the scope and relevance of gene therapy.
- 18. List the practical applications of autoradiography.
- 19. Give an account of genomics.
- 20. Describe various thrust areas of bioinformatics.
- 21. Explain molecular visualization using RasMol.

 $(6 \times 5 = 30)$

Part C

Answer any two questions.

Each question carries 10 marks.

- 22. Give an account on various aseptic techniques used in plant tissue culture.
- 23. Describe the features of different vectors used in genetic modification.
- 24. Describe the steps in PCR.
- 25. Describe briefly various protein databases.

 $(2 \times 10 = 20)$

