

END OF SEMESTER EXAMINATIONS, APRIL / MAY - 2017

ELECTIVE: BIOTECHNOLOGY - II

SUBJECT CODE : 12UAB012

MAJOR : B.Sc. (BOTANY)

TIME : 3 HOURS

SEMESTER : VI

MAX. MARKS: 75

SECTION A – (10 X 1 = 10)**Answer ALL the Questions:**

1. Define totipotency.
2. What are plant growth regulators? Give an example.
3. What are cybrids?
4. Highlight the advantage of PEG.
5. Write the catalytic role of α - amylase.
6. What is meant by biosensor?
7. Name any organism used as SCP.
8. Distinguish between biomass and biogas.
9. What are phosphate solubilizers? Give an example.
10. Write any two features of Rhizobium?

SECTION B – (5 X 5 = 25)**Answer any FIVE Questions:**

11. Describe the various sterilization procedures followed in plant tissue culture.
12. Write the composition of any two plant growth media.
13. Write notes on the application of bio-chips.
14. Explain the method of enzyme immobilization.
15. Give an account on petro-crops.
16. Outline the steps involved in biogas technology.
17. Give a brief account on the types and applications of bio fertilizers.

SECTION C – (5 X 8 = 40)**Answer any FIVE Questions:**

18. Explain the principle, steps involved and applications of micropropagation.
19. Discuss in detail the callus culture technology.
20. Describe the isolation of protoplast. Add a note on its application.
21. Outline the various methods of cryo-preservation.
22. Write an account on the industrial production of cellulose.
23. Discuss the technique of mushroom cultivation.
24. Explain the advantages, mass cultivation and application of Azotobacter and Azospirillum.
