

**C 80861**

(Pages : 2)

Name.....

Reg. No.....

**FOURTH SEMESTER (CUCBCSS—UG) DEGREE EXAMINATION, APRIL 2020**

Biotechnology

BTY 4C 15—ENVIRONMENTAL BIOTECHNOLOGY

Time : Three Hours

Maximum : 64 Marks

**Section A**

*Answer all questions in a word or Phrase.*

*Each question carries 1 mark.*

1. Cry genes.
2. Pruteen.
3. Energy crop.
4. Heap leaching.
5. Bioaugmentation.
6. Golden rice.
7. PL A.
8. Biosorption.
9. Co metabolism.
10. *In situ* Bioremediation.

(10 × 1 = 10 marks)

**Section B**

*Give short answer to any seven out of ten questions.*

*Each question carries 2 marks.*

11. Mention any three disadvantages of GM crops.
12. How PHB is commercially synthesized.
13. Briefly explain the use of any *two* marine algae as a food.
14. Mechanism of action of thuringiensis toxin.
15. What is Anabaena ?

**Turn over**

16. What is non symbiotic nitrogen fixation ?
17. What is biopol ?
18. Explain the biological production of hydrogen.
19. What is Flavor Savr tomato ?
20. Comment on the bacterial nitrogen fixers.

(7 × 2 = 14 marks)

### Section C

*Answer in a paragraph to any four out of six questions.  
Each question carries 5 marks.*

21. Comment on the significance of genetically modified organisms to protect environment.
22. What is the role of phosphate solubilising bacteria as a fertilizer ?
23. Comment on the methods of biopower generation.
24. What are environmental effects of synthetic plastics ?
25. Discuss organic waste materials as a medium for biomass generation
26. Explain the biological production of hydrogen.

(4 × 5 = 20 marks)

### Section D

*Write essays on any two.  
Each question carries 10 marks.*

27. Explain the strategies of bioremediation
28. Write down an essay on biological nitrogen fixers.
29. Principle and method of bioleaching of any two metals.
30. Production of fuel alcohol from biomass.

(2 × 10 = 20 marks)