

15P412

(Pages: 2)

Name.....

Reg.No.....

FOURTH SEMESTER M.Sc. DEGREE EXAMINATION, MARCH 2017

(CUCSS - PG)

(Zoology)

CC15P ZO4 C11 –MICROBIOLOGY & BIOTECHNOLOGY

(2015Admission)

Time: 3 Hours

Maximum: 36 Weightage

I. Answer all fourteen questions:

1. What is a biogas plant?
2. Write notes on aquatic microbes.
3. Comment on Bergey's manual.
4. Distinguish between homolactic and heterolactic fermenters.
5. Comment on bacterial motility.
6. Present the pathology of tetanus.
7. Comment on SARS.
8. Write notes on trademarks.
9. What is Real Time PCR? What is its application?
10. What is therapeutic cloning?
11. What is antisense RNA technology?
12. Comment on primary explantation techniques.
13. Explain DNA fingerprinting.
14. Comment on the social acceptance of Industrial Biotechnology.

(14 x 1 = 14 Weightage)

II. Answer any seven of the following:

15. Give an account of the components external to the cell wall of bacteria.
16. Explain the transport of nutrients in bacteria.
17. Comment on bacterial nutrition and their types.
18. Write notes on continuous and batch culture.
19. What are the reasons for acquiring antibiotic resistance?
20. Comment on the applications of biotechnology in pollution control.
21. Explain Sanger method for DNA sequencing.
22. What are the applications of transgenic organisms?

23. Give short notes on any four molecular markers.
24. Explain blue white selection method for selecting transformed cells.

(7 x 2 = 14 Weightage)

III. Answer any two of the following:

25. Enumerate the different methods of estimation of bacterial growth.
26. Describe the various physical and chemical methods for controlling micro-organisms.
27. Write an essay on the construction and screening of genomic and cDNA library
28. Describe the different types of cloning vectors.

(2 x 4 = 8 Weightage)
