

**17P324**

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Name.....

Reg. No.....

**THIRD SEMESTER M.Sc. DEGREE EXAMINATION, NOVEMBER 2018**

(CUCSS-PG)

**CC17P ZO3 CT09 - MICROBIOLOGY AND BIOTECHNOLOGY**

(Zoology)

(2017 Admission)

Time: Three Hours

Maximum: 36 Weightage

I. Answer *all* questions. Each question carries 1 weightage.

1. Bergey's Manual
2. Nutrient broth.
3. Enlist any four environmental factors influencing the growth of microbes.
4. Knockout mouse.
5. Dot blot.
6. Mention the importance of gene synthesizing machines.
7. Describe the mode of action of cephalosporin.
8. Comment on the advantages of embryo cloning.
9. Write the differences between DNA Viruses and RNA Viruses.
10. Write an account on patenting of biological materials.
11. What are the basic parts of a biogas plant?
12. Mention the role of phenolic compounds as microbial disinfectants.
13. Comment on the scope of biotechnology in pest control.
14. Write notes on chromosome walking.

**(14 x 1=14 Weightage)**

II. Answer any *seven* questions. Each question carries 2 weightage.

15. Write a brief account on molecular probes.
16. Briefly explain microbial drug resistance.
17. Briefly describe various transfection techniques.
18. Explain the scope of biotechnology in human health care.
19. Give a brief account on cloning vectors.
20. Explain gram staining in bacteria.
21. Describe various gene silencing techniques.
22. Write notes on the ethical and social implications of genetic engineering.
23. Describe any two techniques of pure culture preparation.
24. Microbial bioremediation.

**(7 x 2 = 14 Weightage)**

III. Answer any *two* questions. Each question carries 4 weightage.

25. Write an essay on Polymerase chain reaction. Add a brief note on its applications.

26. Describe various molecular markers and their applications.

27. Write an essay on human diseases caused by bacteria.

28. Describe utilization of energy by microbes.

**(2 x 4 = 8 Weightage)**

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