

M.SC DEGREE END SEMESTER EXAMINATION OCTOBER 2016**SEMESTER – 3: ZOOLOGY****COURSE: P3ZOOT11– MICROBIOLOGY AND BIOTECHNOLOGY**

Common for Regular (2015 Admission) & Supplementary / Improvement (2014 Admission)

Time: Three Hours**Max. Marks: 75****Part A**(Answer **any Eight** Questions. Each carries 2 marks)

1. Define Virioids
2. Differentiate between symbiosis and commensalism
3. What are SNP ? Mention their significance.
4. Distinguish between Ti and Ri plasmids
5. Distinguish between fimbriae and flagella
6. What are reporter genes?
7. Define cryopreservation
8. Comment on DNA vaccines
9. Dlyvu;What are stem cells? Explain their role in medicine.
10. Comment on Biochips
11. Comment on TRIPS
12. What are Koch postulates? Mention their significance. (2 x 8 = 16)

Part B(Answer **any Seven** Questions. Each carries 5 marks)

13. What is recombinant DNA technology? Explain General guidelines for recombinant DNA research activity
14. What is Virus? Comment on structure and chemical composition of RNA and DNA virus with examples.
15. Comment on Polymerase chain reaction
16. Describe the anatomy of Prokaryotic Cells
17. Comment on the use of microbes in waste management
18. Explain the Bioethics
19. Discuss the methods of Transfection
20. Give an account of Molecular markers
21. Explain Gene therapy. Add a note on the significance
22. Give an account on VNTR and RFLP (5 x 7 = 35)

Part C(Answer **any two** question. Each carries 12 marks)

23. Describe the ultra-structure of bacterium with suitable illustrations
24. Discuss the use of biotechnology in Agriculture
25. Describe tissue culture
26. Write an essay on cloning methodologies and their applications in modern biology.
