

Total No. of Pages: 2

**6565**

Register Number:

Name of the Candidate:

**M.Sc. DEGREE EXAMINATION, May 2015**

**(MICROBIOLOGY)**

**(FIRST YEAR)**

**120: MICROBIAL PHYSIOLOGY AND METABOLISM**

Time: Three hours

Maximum: 100 marks

---

**SECTION - A**

**Answer any TEN questions**

**(10 × 2 = 20)**

1. Photoautotrophs
2. Super oxide radicals
3. Facilitated diffusion
4. Isoenzymes
5. Michaelis Menton equation
6. Heterotrophs
7. ATP synthase
8. Chemoautotrophs
9. Law of thermodynamics
10. CO<sub>2</sub> fixation
11. Gluconeogenesis
12. Isoprenoids
13. Translation
14. Transcription
15. Cellular respiration

**SECTION - B**

**Answer any FOUR questions**

**(4 × 10 = 40)**

16. Briefly explain the passive and facilitated diffusion
17. Explain the law of mass action.
18. Give an account on the effect of enzyme inhibitors with suitable example.

19. Briefly explain the pentose phosphate pathway.
20. Explain in detail about amino acid synthesis
21. explain the effect of environmental factors on microbial growth.

**SECTION - C**  
**Answer any TWO questions**

**(2 × 20 = 40)**

22. Explain in detail about the membrane transport mechanism.
23. Explain the Glycolysis and TCA cycle.
24. Give a detail account on post translational modifications.
25. Discuss about the serological techniques and its applications.

\$\$\$\$\$\$