

D 93007

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Name

Reg. No.....

FIRST SEMESTER M.Sc. DEGREE EXAMINATION, DECEMBER 2015

(CUCSS)

Microbiology

MB 1C 02—MICROBIAL METABOLISM

Time : Three Hours

Maximum : 36 Weightage

Part A

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

1. What is meant by chemical work ?
2. State first law of thermodynamics.
3. Differentiate between apoenzyme and holoenzyme.
4. What is meant by activation energy ?
5. Cite one example for competitive inhibition.
6. What is an amphibolic pathway ?
7. Write the principle behind affinity chromatography.
8. What is the significance of gluconeogenesis ?
9. List, the aminoacids involved in peptidoglycan interbridge.
at is the mode of action of mycotoxins ?
11. What is meant by co-metabolism ?
12. Metallo-enzyme.
13. Enterotoxin.
14. What is the role of siderophore ?

(14 x 1 = 14 weightage)

Part B

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

15. What is meant by redox reaction ?
16. Why ATP is considered as high energy molecule ?
17. What are the types of reactions catalysed by transferases ? Cite one example.
18. Distinguish between substrate level phosphorylation and oxidative phosphorylation.
19. Differentiate between deamination and decarboxylation.

Turn over

20. Write about the chemical nature of storage polysaccharides in bacterial cell.
21. Write notes on intracellular reserve polymers.
22. Write notes on methanogenic bacteria.
23. What is the mode of action of beta lactam antibiotics ?

(7 x 2 = 14 weightage)

Part C

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

24. Classification of enzymes.
25. Glycolytic pathway.
26. Mechanisms of enzyme regulation.

(2 x 4 = 8 weightage)