

D 22433

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Name.....

Reg. No.....

FIRST SEMESTER M.Sc. DEGREE EXAMINATION, JANUARY 2012

(CUCSS)

Microbiology

MBI CO2 —MICROBIAL METABOLISM

(2010 Admissions)

Time : Three Hours

Maximum Weightage : 36

Part A

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

1. Chemoheterotroph.
2. Second law of thermodynamics.
3. Differentiate between Entropy and Enthalpy.
4. What is the role of co-enzymes ?
5. What is meant by denaturation of enzymes ?
6. Give an example for non-competitive inhibition.
7. What is the role of aldolase in glycolysis pathway ?
8. Photophosphorylation.
9. What is meant by chemi-osmotic hypothesis ?
10. What is the mode of action of beta lactam antibiotics ?
11. Mode of action of ochratoxins.
12. Process involved in degradation of purines.
13. Role of epinephrine on glycogen synthase.
14. What is the significance of omega oxidation ?

(14 x 1 = 14 weightage)

Part B

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

15. Differentiate between Oxidizing agent and Reducing agent.
16. What are the types of reactions catalysed by ligases ? List **one** example.
17. Differentiate between Transamination and Transmethylation.
18. What is a siderophore ? What is its significance ?
19. How cyclic AMP is formed ?
20. What is PUFA ? Mention its significance.

Turn over

21. Regulation of glycolysis.
22. What is the type of reactions catalysed by isomerases ? Give *one* example.
23. Write notes on TLC.

(7 x 2 = 14 weightage)

Part C

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

24. Effect of environmental parameters on enzyme activity.
25. Pentose phosphate pathway.
26. Microbial metabolism of xenobiotics.

(2 X 4 = 8 weightage)