

E 1352

(Pages : 2)

Reg. No.....

Name.....

B.Sc. DEGREE (C.B.C.S.S.) EXAMINATION, OCTOBER 2015

Third Semester

Complementary Course—BIOCHEMISTRY

ENZYMOLGY AND METABOLISM—I

(Common for all Programmes having Biochemistry as Complementary Subject)

(2013 Admission onwards)

Time : Three Hours

Maximum : 60 Marks

Part A (Short Answer Questions)

Answer all questions.

1 mark each.

1. What are cytochromes ?
2. Write about significance of PEP carboxylase.
3. What is K_m value ?
4. Explain absorption spectrum.
5. What is fermentation ?
6. What is Glycogenesis ?
7. Why Calvin cycle is known as Dark reaction ?
8. What are coenzymes ?

(8 × 1 = 8)

Part B (Brief Answer Questions)

Answer any six questions.

2 marks each.

9. Write about site of ATP formation in electron transport chain.
10. Explain anaerobic oxidation of carbohydrates.
11. What is Pentose phosphate pathway ? Point out the significance.
12. Give an account of PS I and PS II.
13. What is Lineweaver Burk Plot ?
14. Write a short note on digestion of carbohydrates.
15. What is optical specificity ?

Turn over

16. What is chemiosmotic hypothesis ?
17. Write a note on prosthetic group.
18. Explain activation of SH enzymes.

(6 × 2 = 12)

Part C (Short Essay Type Questions)

*Answer any four questions.
4 marks each.*

19. Give an account of fate of pyruvate in alcoholic fermentation.
20. Explain Michaelis-Menten equation.
21. Write an account of high energy compounds.
22. Explain oxidative phosphorylation.
23. Write about classification of enzymes.
24. Explain role of cyclic AMP in glycogen metabolism.

(4 × 4 = 16)

Part D (Long Essay Type Questions)

*Answer any two questions.
12 marks each.*

25. Explain Glycogenesis and glycogenolysis.
26. Describe allosteric activation and inhibition with example.
27. Illustrate Citric Acid Cycle. Point out ATP yield from Citric Acid Cycle.
28. Explain C₄ pathway .

(2 × 12 = 24)