E 1352

(Pages : 2)

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

Third Semester

Complementary Course—BIOCHEMISTRY

ENZYMOLOGY 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 Km 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 ?

$(8 \times 1 = 8)$

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.

$(6 \times 2 = 12)$

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.

$(4 \times 4 = 16)$

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 C_4 pathway .

$(2 \times 12 = 24)$