

QP CODE: 18103374



Reg No :

Name :

B.Sc. DEGREE (CBCS) EXAMINATION, NOVEMBER 2018

Third Semester

COMPLEMENTARY COURSE - BC3CMT03 - BIOCHEMISTRY- ENZYMOLOGY AND METABOLISM

(Common to B.Sc Biological Techniques and Specimen Preparation Model III, B.Sc Biotechnology Model III, B.Sc Botany and Biotechnology Model III, Double Main, B.Sc Botany Model I, B.Sc Botany Model II, Environmental Monitoring And Management, B.Sc Botany Model II Food Microbiology, B.Sc Botany Model II- Horticulture and Nursery Management, B.Sc Botany Model II-Plant Biotechnology, B.Sc Microbiology Model III, B.Sc Zoology and Industrial Microbiology Model III Double Main, B.Sc Zoology Model I, B.Sc Zoology Model II- Aquaculture, B.Sc Zoology Model II- Food Microbiology, B.Sc Zoology Model II- Medical Microbiology)

2017 Admission Onwards

EEBC4FCC

Maximum Marks: 60

Time: 3 Hours

Part A

Answer any **ten** questions.

Each question carries **1** mark.

1. Write down two examples of hydrolases.
2. What do you mean by Holoenzyme?
3. Mention the significance of K_m .
4. Name the end product of aerobic glycolysis.
5. Name the monomeric unit of glycogen.
6. What is glycogen phosphorylase?
7. Mention the major site for degradation of amino acids.
8. Mention the significance of urea cycle
9. What is the fate of amino acid carbon skeleton?
10. How many enzymes are involved in fattyacid synthase complex?
11. What is the end product of beta oxidation of fatty acids?
12. How many molecules of ATP are produced during beta oxidation of one molecule of palmitic acid?

(10×1=10)

Part B

Answer any **six** questions.

Each question carries **5** marks.

13. Give a note on Michaelis Menten equation, K_m Value and its significance





14. What is Lineweaver –Burk plot? Explain its significance.
15. Briefly explain group specificity and geometrical specificity of enzymes.
16. Give a note on Complex II in ETC
17. Describe oxidative phosphorylation and ATP synthesis.
18. Give a note on amino acid deamination.
19. What are ketogenic amino acids? Give two examples.
20. What is the role of carnitine in the oxidation of fatty acids?
21. What are ketone bodies?

(6×5=30)

Part C

Answer any **two** questions.

Each question carries **10** marks.

22. Explain in detail the various factors affecting the rate of enzyme catalyzed reactions.
23. Explain the reactions in Kreb's cycle.
24. Describe the reactions involved in amino acid catabolism.
25. Describe the reactions involved in fatty acid activation and its oxidative pathway.

(2×10=20)