

D 11815

(Pages : 2)

Name.....

Reg. No.....

**THIRD SEMESTER (CUCBCSS—UG) DEGREE EXAMINATION
NOVEMBER 2021**

Biochemistry

BCH 3C 03—BIOCHEMISTRY—III

(2014—2018 Admissions)

Time : Three Hours

Maximum : 64 Marks

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

1. The $1/V$ vs $1/[S]$ plot is also known as _____.
2. The zymogen form of trypsin is _____.
3. Name the two amino acids which are not substrates for gluconeogenesis.
4. Write the expansion for RUBISCO.
5. Name the enzyme that catalyses the last irreversible step in glycolytic cycle.
6. Give an example of a high energy compound.
7. Name the products obtained from non-cyclic photophosphorylation.
8. Name the class of enzymes to which transaminases belong.
9. Name the primer involved in glycogenesis.
10. Name the products of light reaction of photosynthesis.

(10 × 1 = 10 marks)

Part B (Short Answer Type)*Answer any seven questions.**Each question carries 2 marks.*

11. Define active site of an enzyme.
12. What is meant by geometrical specificity of enzymes ? Give an example.
13. What is gluconeogenesis ?
14. Why is pyruvate converted to lactate ?

Turn over

15. What is meant by amphibolic nature of TCA cycle ?
16. What is RUBISCO ?
17. What are coenzymes ? Give any *two* examples.
18. How does pyruvate undergo decarboxylation ?
19. Give two examples of substrate level phosphorylation.
20. List out the different complexes involved in electron transport chain.

(7 × 2 = 14 marks)

Part C (Paragraph Type)

*Answer any **four** questions.*

Each question carries 5 marks.

21. Explain the effect of substrate concentration on enzyme activity.
22. Draw the Line weaver Burk plot for non-competitive inhibition.
23. Write about the different fates of pyruvate after glycolysis.
24. Write down the sites of ATP formation in electron transport chain.
25. Differentiate between cyclic and non-cyclic photophosphorylation.
26. Explain the role of hormones in glycogen metabolism.

(4 × 5 = 20 marks)

Part D (Essay Type)

*Answer any **two** questions.*

Each question carries 10 marks.

27. Give a detailed account of digestion and absorption of carbohydrates.
28. Discuss in detail Glycogen metabolism.
29. Give a detailed account of different type of enzyme inhibition
30. Give a detailed account of Calvin Cycle.

(2 × 10 = 20 marks)