D 11997 (Pages : 2) Name.....

Reg. No.....

THIRD SEMESTER (CBCSS—UG) DEGREE EXAMINATION

NOVEMBER 2021

Biochemistry

BCH 3C 03—BIOCHEMISTRY—III

(2019— Admission)

Time : Two Hours Maximum : 60 Marks

Section A

Answer **all** *questions.*

Each question carries 1 *mark.*

1. Example for a high energy compound is _____.

   (a) Pyruvate. (b) Glucose.

   (c) Phosphoenol pyruvate. (d) Adenosine.

2. _____ inhibits electron transport chain.

   (a) 2,4-DNP. (b) Amytal.

   (c) Aspirin. (d) Puromycin.

3. The enzyme secreted by the pancreas during digestion of carbohydrate is :

   (a) Maltase (b) α-amylase.

   (c) Lactase. (d) Sucrose.

4. The SI unit of enzyme activity is :

   (a) mg/ml. (b) mole.

   (c) katal. (d) mg.

5. Define redox reaction.

6. Write Michaelis-Menten equation.

7. Define Calvin cycle.

8. Define glycolysis.

9. Write about the group specificity of an enzyme.

(9 × 1 = 9 marks)

Turn over

Section B

Answer at least **six** *questions.*
Each question carries 3 *marks.*
All questions can be attended.
Overall Ceiling 18.

10. What is meant by an uncoupler of oxidative phosphorylation ? Give two examples.
11. How is aerobic glycolysis different from anaerobic glycolysis ?
12. Differentiate anabolism and catabolism with one example each.
13. Write the significance of pentose phosphate pathway.
14. Define Km. Give its significance.
15. What is Kranz anatomy ? Give its importance.
16. How do irreversible inhibition of enzyme takes place ?
17. Comment on induced fit hypothesis.

(6 × 3 = 18 marks)

Section C

Answer at least **three** *questions.*
Each question carries 7 *marks.*
All questions can be attended.
Overall Ceiling 21.

18. Give a brief account of electron transport chain.
19. Briefly explain the role of cAMP in glycogen metabolism.
20. Detail the factors affecting the velocity of an enzyme catalysed reaction.
21. How are carbohydrates absorbed in the body ?
22. Distinguish between substrate level phosphorylation and oxidative phosphorylation.

(3 × 7 = 21 marks)

Section D

Answer any **one** *question.*
The question carries 12 *marks.*

23. Enumerate gluconeogenesis.
24. Describe different types of reversible enzyme inhibition.

(1 × 12 = 12 marks)