D 103023 **(Pages : 3)** **Name.....**

Reg. No.....

FOURTH SEMESTER (CBCSS—UG) DEGREE EXAMINATION
APRIL 2024

Biochemistry

BCH 4C 04—BIOCHEMISTRY—IV

(2020 Admission onwards)

Time : Two Hours Maximum : 60 Marks

Section A

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

1. Name the major end product of β-oxidation.
2. Example for a ketogenic amino acid is ————————.
   (a) Alanine. (b) Histidine.
   (c) Leucine. (d) Arginine.
3. Sigma and rho factors are required for ———————— and ———————— of transcription respectively.
   (a) Termination and initiation. (b) Elongation and termination.
   (c) Initiation and termination. (d) Initiation and elongation.
4. ———————— is secreted by adrenal cortex.
   (a) Epinephrine. (b) Cortisol.
   (c) Noradrenaline. (d) Growth hormone.
5. A codon consists of ———————— nucleotides.
   (a) Two. (b) Four.
   (c) Three. (d) Five.
6. Name the two hormones secreted by thyroid gland.
7. Number of ATP generated from one palmitic acid is ————————.
   (a) 132. (b) 128.
   (c) 129. (d) 121.

Turn over

8. Name the site of formation of urea.

9. Absorption of lipids takes place in the ————————.

(a) Small intestine. (b) Large intestine.

(c) Mouth. (d) Stomach.

(9 × 1 = 9 marks)

Section B

Answer any **seven** *questions.*
Each question carries 3 *marks.*

10. Give an account of deamination reaction of amino acids with example.

11. State the salient features of genetic code.

12. Write note on thyroid gland hormones and their function.

13. What is fatty acid biosynthesis and its importance ?

14. Differentiate between glucogenic and ketogenic amino acids.

15. Write short note on DNA polymerases.

16. What hormones are produced by the pancreas ? State their function.

17. Give an account of the steps involved in lipid digestion.

(7 × 3 = 21 marks)

Section C

Answer any **four** *questions.*
Each question carries 5 *marks.*

18. Detail on the structure of tRNA and its function.

19. How is ammonia metabolized in our body ?

20. Outline β-oxidation reactions and calculate the ATP yield from palmitate.

21. How are hormones classified based on their chemical nature ?

22. Enlist the proteins and their functions involved in DNA replication.

(4 × 5 = 20 marks)

Section D

Answer any **one** *question.*
The question carries 10 *marks.*

23. Describe cholesterol biosynthesis.

24. Explain DNA replication in prokaryotes.

(1 × 10 = 10 marks)