

C 23339

(Pages : 2)

Name.....

Reg. No.....

**FOURTH SEMESTER B.Sc. DEGREE EXAMINATION, APRIL 2017**

(CUCBCSS-UG)

Complementary Course

BCH 4C 04—BIOCHEMISTRY—IV

Time : Three Hours

Maximum 64 Marks

**Part A**

*Answer all the ten questions.*

*Each question carries 1 mark.*

1. The key enzyme in the regulation of fatty acid synthesis is \_\_\_\_\_
2. Which enzyme hydrolyses fat in intestine ?
3. Name the organ which synthesise HDL.
4. Fatty acids break down of eukaryotes occurs in \_\_\_\_\_
5. The energy currency of the cell is \_\_\_\_\_
6. Name an imino acid.
7. Scurvy is due to the deficiency of \_\_\_\_\_
8. Which mineral is responsible for oxygen transport ?
9. Which mineral is essential for the prevention of goiter ?
10. What transports copper from the intestinal cells to the liver ?

(10 × 1 = 10 marks)

**Part B (Short Answers)**

*Answer any seven of the following.*

*Each question carries 2 marks.*

11. Write down the functions of phospholipids.
12. What is transamination ?
13. What are the fat-soluble vitamins ?
14. What are the functions of vitamin A ?
15. Why is vitamin D known as 'the sunshine vitamin' ?
16. What are the clinical consequences of vitamin E deficiency ?

Turn over

17. What is the function of Vitamin B<sub>1</sub> (thiamin) ?
18. What is hyper ammonemia ?
19. What is the fate of urea ?
20. Explain a reaction involving NAD<sup>+</sup>.

(7 × 2 = 14 marks)

### Part C (Paragraphs)

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

21. Describe fatty acid synthase complex.
22. Explain the formation of Glycine.
23. What is the nutritional importance of potassium ?
24. What is the role of iron in the body ?
25. Discuss the biological role of selenium.
26. How proteins are classified ?

(4 × 5 = 20 marks)

### Part D (Essays)

*Answer any two of the following.  
Each question carries 10 marks.*

27. Explain the steps of beta oxidation of palmitic acid, giving energetic and regulation.
28. Enumerate the major steps of synthesis of cholesterol. Name the rate limiting step.
29. Describe the reactions of urea cycle. How it is regulated ?
30. Write an essay on the mechanism of action , site of biosynthesis and functions of thyroxine, insulin, glucagon and epineprine.

(2 × 10 = 20 marks)

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