

D 42004

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Name.....

Reg. No.....

**FOURTH SEMESTER B.Sc. DEGREE EXAMINATION, APRIL 2018**

(CUCBCSS—UG)

Complementary Course

BCH 4C 04—BIO-CHEMISTRY—IV

Time : Three Hours

Maximum : 64 Marks

**Section A**

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

1. Vitamin \_\_\_\_\_ is involved in Blood clotting.
2. \_\_\_\_\_ is the rate limiting enzyme of Cholesterol biosynthesis.
3. Scurvy is caused by the deficiency of \_\_\_\_\_
4. \_\_\_\_\_ is a Glucogenic amino acid.
5. Deficiency of \_\_\_\_\_ results in Goiter.
6. \_\_\_\_\_ are hormones regulating Blood glucose levels.
7. \_\_\_\_\_ is an animal Sterol.
8. \_\_\_\_\_ is a Phospholipid.
9. Give an example of a Proteolytic enzyme.
10. Where does Urea cycle takes place ?

(10 × 1 = 10 marks)

**Section B**

*Answer any seven of the following questions.  
Each question carries 2 marks.*

11. What are Ketone bodies ? Give *two* examples.
12. What is deamination reaction ? Give an example.
13. What are the biological roles of Iron ?
14. What is Rickets ? What are the symptoms and contributing factors of Rickets ?
15. What are the sources of Vitamin K ?
16. What are the functions of Growth Hormone ?
17. What are Second Messengers ? Give an example.
18. What is  $\beta$  oxidation ?
19. How Ornithine is formed in urea cycle ?
20. What is the function of Acetyl CoA Carboxylase ?

(7 × 2 = 14 marks)  
**Turn over**

**Section C**

*Answer any four of the following questions.  
Each question carries 5 marks.*

21. What is Carnitine ? Explain its role in  $\beta$  oxidation.
22. Explain the regulation of fatty acid synthesis.
23. Explain the mechanism of action of peptide hormones.
24. Explain the biological roles of sodium.
25. Explain the physiological functions of Vitamin B1.
26. Explain urea cycle.

(4 × 5 = 20 marks)

**Section D**

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

27. Explain the digestion and absorption of lipids.
28. Explain the classification of hormones with suitable examples.
29. What are Vitamins ? Explain the physiological functions of fat soluble Vitamins.
30. Describe the Bio-synthesis of Cholesterol.

(2 × 10 = 20 marks)