

C 80859

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Name..... /

Reg. No.....

FOURTH SEMESTER (CUCBCSS—UG) DEGREE EXAMINATION, APRIL 2020

Biochemistry

BC H4 C04—BIOCHEMISTRY—IV

Time Three Hours

Maximum : 64 Marks

Section A

Answer all questions.

Each question carries 1 mark.

1. The hormone glucagon is synthesized from the \_\_\_\_\_  
(a) Pancreas. (b) Hypothalamus.  
(c) Adrenal gland. (d) Pituitary.
2. Acid protease secreted into the stomach is \_\_\_\_\_  
(a) Trypsin (b) Pepsin.  
(c) Chymotrypsin. (d) Enteropeptidase.
3. \_\_\_\_\_ is used for the synthesis of hormones involved in regulation of basal metabolic rate in adults.  
(a) Iron. (b) Zinc.  
(c) Iodine. (d) Fluoride.
4. Urea cycle takes place primarily in the \_\_\_\_\_  
(a) Small intestine. (b) Liver.  
(c) Kidneys. (d) Large intestine.
5. The daily dietary requirement of Vitamin E for men is \_\_\_\_\_  
(a) 50mg. (b) 15mg.  
(c) 60mg. (d) 100mg.
6. Name the disease caused by Vitamin B<sub>3</sub> deficiency.
7. Fatty acid biosynthesis begins with \_\_\_\_\_
8. Name the disease in young children associated with Vitamin D deficiency.
9. Lack of \_\_\_\_\_ in the diet causes goitre.
10. Name two glucogenic amino acids.

(10 × 1 = 10 marks)

Turn over

**Section B**

*Answer any seven questions.  
Each question carries 2 marks.*

11. What is deamination reaction ?
12. Name two hormones secreted by pancreas.
13. Mention the cellular localization of palmitic acid degradation and ATP yield in the process.
14. Write down the sources and any two biological function of vitamin C.
15. Give the biological role of copper.
16. Write any two functions of phospholipids.
17. Define ketogenic amino acid. Give one example.
18. What is the function of the hormone thyroxine ?
19. Enumerate the differences between macro minerals and trace minerals.
20. Write down one biochemical reaction in which NADP is involved.

(7 × 2 = 14 marks)

**Section C**

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

21. Write briefly on urea cycle.
22. Briefly explain the importance of macro minerals with examples.
23. How are vitamins classified ?
24. Briefly explain absorption of lipids from small intestine.
25. Give an account on the proteolytic enzymes of the digestive tract.
26. Outline  $\beta$ -oxidation scheme.

(4 × 5 = 20 marks)

**Section D**

*Answer any two questions.  
Each question carries 10 marks.*

27. Describe the cytoplasmic system of fatty acid biosynthesis.
28. Elaborate cholesterol biosynthesis.
29. Detail : (a) classification of proteins based on catabolism ; (b) absorption of amino acids from intestine.
30. Write down one biochemical reaction from metabolism which involves : (a) TPP ; (b) FMN ; (c) NAD ; (d) PLP ; (e) Biotin.

(2 × 10 = 20 marks)