TB254810D

Reg. No :.....

Name :.....

BACHELOR'S DEGREE (C.B.C.S) EXAMINATION, MARCH 2025

2020, 2021, 2022 ADMISSIONS SUPPLEMENTARY

SEMESTER IV - COMPLEMENTARY COURSE 1

ND4C07B20 - Biochemical Aspects of Nutrition

Time : 3 Hours **Maximum Marks : 80**

Part A

I. Answer any Ten questions. Each question carries 2 marks **(10x2=20)**

1. Associate the action of magnesium in various enzymatic reactions.
2. Discuss the distribution and turnover of calcium in the body.
3. Describe the role of calcium in bone mineralization.
4. Differentiate between iodine deficiency and toxicity.
5. Explain the role of enhancers and inhibitors in iron absorption and utilization.
6. Describe the metabolism of iron.
7. What is egg white injury?
8. Discuss the various forms of Vitamin K.
9. Define Wernicke's Encephalopathy.
10. Explain and give tips to improve calcium absorption in terms of nutrient- nutrient interrelation.
11. Explain the interrelation between zinc and vitamin A.
12. Discuss any two functions of biotin in macronutrient metabolism.

Part B

II. Answer any Six questions. Each question carries 5 marks **(6x5=30)**

13. Describe the mechanism of action of phosphorus.
14. Associate magnesium toxicity and factors causing deficiency.
15. Explain the significance of selenoenzymes and selenium toxicity.
16. Explain the difference between the absorption of haem and non-haem iron and factors affecting absorption.
17. Explain the digestion, absorption and transport of zinc.
18. Discuss the formation of vitamin D in human body.
19. Discuss absorption, transport and metabolism of riboflavin.
20. Explain the various methods of gastrointestinal absorption of water soluble vitamins in terms of specific transporters.
21. Explain why incorporation of vitamin C in diet is recommended for anemic patients.

Part C

III. Answer any Two questions. Each question carries 15 marks **(2x15=30)**

22. Summarize the absorption, transport and regulation of phosphorus.
23. Explain the toxicity, deficiency, absorption and functions of Iodine.
24. Discuss the metabolism of vitamin D.
25. Explain how various micronutrients help in the energy metabolism of the body.