17/11/25

TM253694M

Reg. No :.....

Name :.....

MASTER'S DEGREE (C.S.S) EXAMINATION, OCTOBER 2025

2024 ADMISSIONS REGULAR

SEMESTER III - CORE COURSE

FN3C10TM20 - Nutritional Biochemistry

Time : 3 Hours

Maximum Weight : 30

Part A

I. Answer any Eight questions. Each question carries 1 weight (8x1=8)

1. Outline lactose intolerance?
2. Why is ATP called as energy currency?
3. Brief on regulation of cholesterol biosynthesis.
4. Give a brief outline of energetics of beta oxidation of palmitic acid.
5. What is tertiary structure of proteins.
6. Enumerate EAA.
7. Enumerate major enzymes in DNA replication.
8. What are the types of RNA?
9. Enumerate types of antioxidants.
10. Enlist major free radicals.

Part B

II. Answer any Six questions. Each question carries 2 weight (6x2=12)

11. Give an account of electron transport chain(ETC) .
12. Explain De novo synthesis of fatty acids.
13. Give an account of Phenylketonuria.
14. Explain structure and classification of amino acids.
15. Explain DNA replication process.
16. Explain composition and structure of DNA.
17. Give an account of antioxidants in biological systems
18. Explain metabolic role of Thiamine and riboflavin.

Part C

III. Answer any Two questions. Each question carries 5 weight (2x5=10)

19. Give an account of Glycogen metabolism. Add a note on its regulation.
20. Give an account of cholesterol biosynthesis .Add a note on regulation and energetics.
21. Explain the process of transamination and deamination.
22. Write an essay on the regulatory aspects of carbohydrate and lipid metabolism .