

MASTER'S DEGREE (C.S.S) EXAMINATION, NOVEMBER 2024

2023 ADMISSIONS REGULAR

SEMESTER III - CORE COURSE Food Science And Nutrition

FN3C10TM20 - Nutritional Biochemistry

Time : 3 Hours

Maximum Weight : 30

Part A

I. Answer any Eight questions. Each question carries 1 weight

(8x1=8)

1. Explain principle of Benedict's test.
2. Differentiate between starch and glycogen structures.
3. Outline significance of acid number of an oil.
4. Brief on regulation of cholesterol biosynthesis.
5. Brief on MSUD.
6. Depict the structure of transfer RNA.
7. Enumerate DNA mutations.
8. What is Chargaff's rule?
9. Enumerate major organs which regulate metabolism.
10. What is role of FMN and FAD?

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. Explain structure and classification of amino acids.
14. Explain any two inborn errors of protein metabolism.
15. Depict the structure of tRNA.
16. Give an account of disorder of nucleic acid metabolism.
17. Explain role of biotin and folic acid as coenzymes.
18. Which are the major organs involved in regulation of metabolism?

Part C

III. Answer any Two questions. Each question carries 5 weight

(2x5=10)

19. Describe TCA cycle .Add a note on its energetics and regulation.
20. Write an essay on fatty acid synthesis. Depict the FAS complex .
21. Write an essay on Urea cycle and its significance.
22. Outline the structure and properties of DNA and RNA.