22/10/25

TM253793Y

Reg. No :.....

Name :.....

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

2024 ADMISSIONS REGULAR

SEMESTER III - CORE COURSE

ND3C11TM20 - Clinical Biochemistry

Time : 3 Hours

Maximum Weight : 30

Part A

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

1. Write the etiological factors and complications of metabolic syndrome.
2. Write a note on fat metabolic alterations during diabetes mellitus.
3. Write a note on ketolysis.
4. Write different types of Apo A proteins.
5. Write the composition and different types of HDL.
6. Discuss the antioxidant activity of Vitamin E.
7. Write a note on haemoglobinopathies.
8. Write a note on homocystinuria.
9. Write a note on phenylketonuria.
10. Discuss the methods to assess the functions of thyroid.

Part B

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

11. What are the metabolic changes that occur in brain and liver during various conditions?
12. Explain the structure, synthesis and degradation of insulin.
13. Explain fatty infiltration and biochemical parameters to detect liver damage.
14. Describe the metabolism of HDL.
15. Write about various mechanisms to reduce free radical damages.
16. Write a note on various nutritional anaemias.
17. Write a note on different types of glycogen storage diseases.
18. Explain various types of thyroid function tests.

Part C

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

19. What is insulin receptor? Explain the management techniques to reduce the complications of metabolic syndrome.
20. Write the pathogenesis of atherosclerosis. Explain the causes and consequences of ketosis.
21. Explain various types of thrombosis. Discuss different tests to check thrombolysis.
22. Explain different types of inborn errors of carbohydrate metabolism.