

2025

M.Sc. 1st Semester Examination
CLINICAL NUTRITION AND DIETETICS

Paper : CNDC401X0

(Advanced Physiology and Pathophysiology)

Full Marks : 50

Time : Two Hours

*The figures in the margin indicate full marks.
Candidates are required to give their answers
in their own words as far as practicable.*

Group - A

Answer any *four* questions : 2×4=8

1. Name different types of jaundice.
2. Write the difference between primary and secondary active transport.
3. Name any two GI hormones.
4. What is glycocalyx? State any one function of it. 1+1
5. Name any two antioxidant enzymes.
6. Define HOMA with its calculation.

P.T.O.

(2)

Group - B

Answer any *four* questions : $4 \times 4 = 16$

7. Discuss the role of thyroid hormone on fat metabolism.
What is hypothyroidism? 3+1
8. Write the role of Ghrelin in energy homeostasis. Why cortisol is called stress hormone? 3+1
9. Write the role of insulin and glucagon in regulation of carbohydrate metabolism.
10. Describe the role of gastrin in regulating gastric acid secretion.
11. State the role of the Na^+ /glucose symporter in glucose absorption. Write the importance of it in diabetes. 2+2
12. What is NAFLD? What are the factors that lead to NAFLD? 2+2

Group - C

Answer any *two* questions : $8 \times 2 = 16$

13. What do you mean by leptin resistance? Write the mechanism of action of leptin. Discuss the biological function of leptin. 2+2+4
14. Describe the process of LDL uptake by cells via endocytosis. State the significance of it in cellular absorption. 6+2

(3)

15. Explain the process of phagocytosis. Discuss the physiological significance of Na^+/H^+ pumps in maintaining pH and electrolyte balance. 4+(2+2)
16. Write short notes on : 4+4

(a) Acid reflux

(b) Regurgitation and dysphagia

Internal Assessment : 10 marks
