

**Instructions:**

All questions in Section I & II carry equal marks  
Illustrate your answers with neat diagrams wherever necessary.

**Section- I Answer in detail ( Any six)****[42]**

- 1 What is body composition? Explain the gender wise difference in body composition.
- 2 What is skinfold measurement? Describe any four sites in detail
- 3 What is thermogenesis? Explain its types in detail.
- 4 What is BMR? Explain the factors affecting BMR in detail.
- 5 Give detail classification of vitamins.
- 6 Enlist the methods of assessment of energy expenditure, describe any one detail.
- 7 Explain the structure, function, and metabolism of Chylomicron.
- 8 Define apolipoproteins, types of apolipoproteins and explain it in detail.
- 9 Define sphingolipidosis and describe Gaucher's disease in detail.
- 10 Explain: Difference between micronutrients and macronutrients.
- 11 Describe the risk factor associated with atherosclerosis.
- 12 Explain inherited metabolic disorder: maple syrup disease.

**Section -II Answer in short (Any Eight)****[08]**

- 1 What is PAR?
- 2 What is PAL?
- 3 Define energy.

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- 4 What is ICMR?
- 5 Write a short note on Archimedes principle.
- 6 Define reverse cholesterol transport.
- 7 Write the fullform of LCAT and LPL.
- 8 Which enzyme is deficient in Fabry's disease?
- 9 What is the role of Apo B48?
- 10 Define malnutrition?
- 11 Mention the diseases associated with deficiency of micronutrients.
- 12 What is balanced diet?
- 13 What is atherosclerosis?
- 14 What is Doglus bag?

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