CODE : 26752

Post graduation (M.D. - Biochemistry)

10 AUG 2026

Paper-2 (Metabolism , Bioenergetics, Nutrition , Vitamins and Hormones)

Date : 10/08/2026

Marks : 100

Q-1 Write detailed notes on the following. **(20 Marks)**

- Define tertiary structure of protein with domain and chaperon. Explain pathogenesis of prion disease with an example of amyloidosis.

Q-2 Write detailed notes on the following. **(20 Marks)**

- Enumerate cholesterol synthesis with regulation. Describe type of dyslipidemia. Explain framingham risk scores for cardiovascular risk.

Q-3 Write short notes on following. **(20 Marks).**

1. Write overview of inter - relation of all major metabolic pathways (preferably explain with flow chart or diagram)
2. Explain Pathogenesis of non-ketotic hyper-osmolar coma and coma due to ketoacidosis with its differentiation.

Q-4 Write short notes on following. **(40 Marks)**

1. Thermogenesis in brown adipose tissue
2. Metabolic and neuro-transmitter alteration during alcohol addiction and withdrawal.
3. Classify obesity. Explain endocrinal pathogenesis of obesity.
4. Ubiquitine and ubiquitinylation.
5. Effect of cirrhosis of liver on metabolism and digestion – absorption
6. Genetic regulation of haemoglobin synthesis and impact of therapeutic drugs & metal on it.
7. Explain "Role of vitamins on metabolism" (with examples)
8. Alteration in blood buffer and renal buffer in case of extensive interstitial lung disease.