

**QP Code: 311020**

**Reg. No.....**

**Third Year B.Sc. Medical Biochemistry Supplementary Examinations  
July 2023  
Metabolism II**

**(2016 Scheme)**

**Time: 3 Hours**

**Total Marks: 100**

- *Answer all questions to the point neatly and legibly • Do not leave any blank pages between answers • Indicate the question number correctly for the answer in the margin space*
- *Answer all parts of a single question together • Leave sufficient space between answers*
- *Draw table/diagrams/flow charts wherever necessary*

**Essay**

**(2x15=30)**

1. Outline the pathway of heme synthesis and its regulation. Add a note on porphyria.
2. Give the dietary sources and daily requirements of iron. Describe mucosal block theory of iron absorption. Add a note on hemochromatosis.

**Short Essay**

**(2x10=20)**

3. Describe the synthesis and secretion of thyroid hormones
4. Nutritional and biochemical basis of Protein Energy Malnutrition (PEM)

**Short Answers**

**(6x5=30)**

5. Wald's visual cycle
6. Specific Dynamic Action (SDA)
7. Metabolic role of folic acid and its deficiency manifestation
8. Describe any five functions of calcium in the body
9. Principles followed for prescription of diet for diabetic persons
10. Name the hormones of pancreas and their functions.

**Comment on**

**(10x2=20)**

11. Biochemical functions of copper in the body
12. Parathyroid hormone
13. Significance of bile pigments in urine
14. Pellagra
15. Dietary fibre
16. Functions of pyridoxal phosphate (PLP)
17. Sickle cell anemia
18. Calcitriol
19. Folate antagonists
20. Neonatal jaundice

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