

QP Code: 311020

Reg. No.....

**Third Year B.Sc. Medical Biochemistry Supplementary Examinations
September 2025
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. What are the physiological functions of Vitamin A and its recommended dietary allowance. Explain the causes and deficiency manifestations of Vitamin A. (6+2+2+5)
2. Define and Classify Hormones based on mechanism of action and give examples for each. Add a note on cAMP (10+5)

Short Essay

(2x10=20)

3. Define and classify porphyrias. Write clinical and biochemical abnormalities of each.
4. Write about, functions, deficiency symptoms, sources and daily requirements of Calcium. Add a note on regulation of plasma calcium and its normal plasma calcium level

Short Answers

(6x5=30)

5. Write functions, sources, RDA and deficiency manifestations of Thiamine
6. Define Obesity and its causes. Add a note on Atkins Diet
7. Heme Catabolism
8. Define hyperbilirubinemia. Classify and Give examples for each class
9. Define BMR, Normal BMR value and its calculation. Factors affecting BMR
10. Scurvy

Comment on

(10x2=20)

11. Normal haemoglobin level. Explain its structure and functions
12. Adipose tissue derived hormones
13. What is Nitrogen Balance and factors affecting it
14. Fluorosis
15. Glycemic Index
16. Normal serum sodium and potassium levels
17. Normal Thyroid profile
18. Recommended Dietary Allowance (RDA) of Iron
19. Specific Dynamic Action
20. Pyridoxal Phosphate
