

Q.P. CODE: M102A030 (THEORY)

DR NTR UNIVERSITY OF HEALTH SCIENCES : VIJAYAWADA- 520008

MBBS DEGREE EXAMINATION: AUGUST, 2024

FIRST M.B.B.S. EXAMINATION

BIOCHEMISTRY PAPER-I

(Theory Questions)

Time: 2 Hour 40 Minutes

Max Marks: 80

Note: Answer all questions.

Draw diagrams, representation wherever necessary.

SECTION-II (THEORY QUESTIONS - 80 MARKS)

STRUCTURED ESSAY QUESTIONS:

2x15=30

1. A 30-year-old man, a strict vegetarian who does not consume even dairy products, came to the hospital with complaints of weakness, pallor, loss of sensation in the extremities, and mental confusion. On investigation, his Hb levels were found to be 7g/dl. His blood picture showed large abnormal and immature RBC. On urine examination, large amounts of methylmalonic acid were detected. (3+4+4+2+2)

- What is your probable diagnosis? And interpret the case.
- What are the deficiency manifestations of Vitamin B12? And explain them.
- Write about absorption and transport of Vitamin B12?
- What are the biochemical functions of VitB12?
- Add a note on the metabolic link between VitB12 and folic acid.

2. Describe the classification and structural organization of lipoproteins? Write in detail about the transportation of lipids in the body. Add a note on disorders of lipoproteins.

SHORT EASSY QUESTIONS:**10x5=50**

3. Write about the glycemic index and its significance.
4. Describe the diagnostic importance of serum enzymes in various diseases.
5. Explain detoxification by conjugation with four examples.
6. Write about the formation and absorption of amino acids.
7. Write about the mechanisms of amino acid absorption.
8. What are enzymes involved in biological oxidation? Explain their functions with examples.
9. Describe the uronic acid pathway and its clinical significance.
10. Metabolic changes in starvation.
11. Describe the tests to assess glomerular function.
12. Write about the sources and generation of reactive oxygen species.
