Important instructions:

- Attempt all questions in order.
- Each question carries 10 marks.
- Read the question carefully and answer to the point neatly and legibly.
- Do not leave any blank pages between two answers.
- Indicate the question number correctly for the answer in the margin space.
- Answer all the parts of a single question together.
- Start the answer to a question on a fresh page or leave adequate space between two answers.
- Draw table/diagrams/flowcharts wherever appropriate.

Write short notes on:

1. a) Internal Quality Control  
   b) Proficiency testing  
   5+5

2. Important biochemical cardiac markers useful for early and late diagnosis of acute myocardial infarction.  
   5+5

   7+3

4. Examination of amniotic fluid and its importance in prenatal diagnosis.  
   6+4

5. Biochemical basis and clinical features of Gout. Add a note on investigations and different treatment modalities.  
   (3+2)+(3+2)

6. a) Metabolic acidosis  
    b) Anion gap  
    5+5

7. Enumerate unsaturated fatty acids and their physiological & nutritional significance.  
   4+6

8. Glycated hemoglobin, different forms, interpretation and false positive/negative results.  
   2+2+4+2

9. a) Genetic diagnosis of HIV infection.  
    b) Biochemical parameters estimated in Cerebrospinal Fluid (CSF) for diagnosis of different types of meningitis.  
    5+5

10. a) Adenosine deaminase deficiency  
     b) Bence Jones protein  
    5+5

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