

**PARUL UNIVERSITY**  
**FACULTY OF MEDICAL SCIENCE & RESEARCH**  
**M.B.B.S September 2019 EXAMINATION**

**Year: 1**  
**Subject Code: 19100106**  
**Subject Name: Biochemistry Paper-II**

**Date: 01/10/2019**  
**Time: 10:30am to 01:00pm**  
**Total Marks: 50**

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**Instructions:**

1. Attempt all questions from each section.
2. Figures to the right indicate full marks.
3. Make suitable assumptions wherever necessary.

**SECTION – A**

**Q.1 Structured Essay Question** (10)

Describe metabolism of iron and add a note on iron deficiency anemia (6+4)

**Q.2 Write short notes on: (any two out of three)** (08)

1. Renal mechanism of pH regulation
2. Protein energy malnutrition
3. Liver function tests

**SECTION – B**

**Q.3 Discuss on: (any three out of four)** (15)

1. Post translational modifications
2. Polymerase chain reaction
3. Disorders of aromatic amino acid metabolism
4. A newborn baby presented with yellowish discoloration of skin and conjunctiva after 3 days of birth. The neonatologist advised phototherapy. The child became normal.
  1. What is the type of jaundice? (1)
  2. Why did phototherapy benefit the child? (2)
  3. What are the other types of jaundice that may be seen in a newborn baby? (2)

**SECTION – C**

**Q.4 Write briefly on: (any four out five)** (12)

1. Enzyme linked immunosorbent assay (ELISA)
2. Tools used for recombinant DNA technology
3. Genetic code
4. Structure and proteins of cell membrane
5. Balanced diet

**Q.5 MCQs** (05)

1. All are enzymes of DNA replication except
  - A. Helicase
  - B. DNA polymerase
  - C. Taq polymerase
  - D. Ligase
2. Rate limiting enzyme for heme biosynthesis is
  - A. ALA dehydratase
  - B. ALA dehydrogenase
  - C. ALA synthase

- D. ALA synthetase
3. ....crosses placental barrier
- A. IgG
  - B. IgM
  - C. IgA
  - D. IgE
4. Most abundant cation intracellularly is .....
- A. Sodium
  - B. Potassium
  - C. Calcium
  - D. None of the above
5. Most abundant plasma protein is.....
- A. Globulins
  - B. Fibrinogen
  - C. Albumin
  - D. None of the above