



**Q.P.Code 1501**

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

**First Professional MBBS Degree Examinations - September 2011**

**BIOCHEMISTRY - PAPER I**

**Time : 3 hrs**

**Max marks : 50**

- **Answer all questions**
- **Draw diagrams wherever necessary**

**Essay**

**(10)**

1. Define  $\beta$ -oxidation. Explain the reactions of  $\beta$ -oxidation of palmitic acid. Add a note on its energetics. **(2+5+3=10)**

**Discuss the following:**

**(2x5=10)**

2. Define and classify enzymes. Give one example for each class and mention the reaction catalysed.
3. Define Urea cycle and describe the reactions of urea cycle.

**Write short notes on:**

**(5x3=15)**

4. Phenylketonuria.
5. Classify lipoproteins and mention the function of each.
6. What is substrate level phosphorylation and mention two examples.
7. Define transamination and give two examples.
8. Define HMP shunt pathway and mention its significance.

**Answer briefly:**

**(5x2=10)**

9. Name two plasma transport proteins and mention their role.
10. Mention two glycogen storage diseases with their deficient enzyme.
11. Write the clinical significance of glycated haemoglobin estimation
12. Name the bile salts and mention its functional significance
13. What is Gaucher's disease. Mention two clinical features.

**Give precise answers:**

**(5x1=5)**

14. Linkage present in sucrose.
15. Name two sulphur containing aminoacids.
16. Mention the enzyme defect in Galactosemia.
17. Mention the chemical name of lecithin.
18. Define  $K_m$  value.