



[KZ 505]

AUGUST 2011

Sub. Code : 4056

FIRST M.B.B.S. DEGREE EXAMINATION

Revised (Non-Semester) Regulations

PAPER VI – BIOCHEMISTRY - II

Q. P. Code : 524056

Time : Three hours

Maximum: 100 Marks

Answer **ALL** questions.

Draw Suitable diagrams wherever necessary

I. Essay Questions :

(2 x 10 = 20)

1. What is cloning? Mention the various types of cloning.
Describe in detail the steps involved in recombinant DNA technology.
2. Describe the role of plasma and renal buffers in maintaining acid base homeostasis.

II. Write Short notes on :

(10 x 5 = 50)

1. Purine salvage pathway.
2. Explain the types and functions of immunoglobulins.
3. Phenylketonuria.
4. Fluorosis.
5. Serum protein electrophoresis.
6. Cell cycle.
7. Role of Parathormone in Calcium, Phosphate homeostasis.
8. Define Xenobiotics and add a note on the various detoxification reactions.
9. Mutation.
10. Secondary structure of protein.

III. Short Answer Questions :

(15 x 2 = 30)

1. Urea cycle disorders cause orotic aciduria. Explain.
2. Acidosis causes hyperkalemia. Why?
3. Define frameshift mutation with an example.
4. We need two primers for polymerase chain reaction. Justify.
5. Mechanism of action of chloramphenicol.
6. Mention the aminoacids which take part in one carbon pool.
7. Mention the enzymes which require selenium as cofactor.
8. Lesch nyhan syndrome presents with hyperuricemia. Explain.
9. Hypothyroidism presents with hypercholesterolemia. Why?
10. Histidine load test.
11. Mention two tumour markers and specify the diagnostic application.
12. M band.
13. Beer Lambert's law
14. Mention 2 transmethylation reactions.
15. Enzyme deficiency in albinism. Mention two clinical features.

