

M.D. DEGREE EXAMINATION

BRANCH XIII – BIOCHEMISTRY

**PAPER II – CELL PHYSIOLOGY, MOLECULAR BIOLOGY AND
HUMAN GENETICS**

Q.P. Code: 202044

Time: Three Hours

Maximum: 100 Marks

I. Essay Questions:

(2 x 15 = 30)

1. Discuss in detail the Recombinant DNA technology and its applications.
2. Write in detail the structure and transport mechanisms across the cell membrane. Add a note on channelopathies.

II. Short notes:

(10 x 5 = 50)

1. DNA binding Motif.
2. Post translational modification.
3. DNA Library.
4. Purine Salvage pathway and its significance.
5. Histones.
6. Probes.
7. Genetic code.
8. Chaperons
9. Point Mutation.
10. DNA Repair Mechanisms.

III. Reasoning Out:

(4 x 5 = 20)

1. Proteins imported in to peroxisomes carry unique targeting sequence.
2. Eukaryotic promoters are more complex.
3. Cancer cells evade Apoptosis.
4. DNA replication is rigidly controlled.
