

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. What are the different phases of Cell cycle and their importance, how they are regulated and add a note on the clinical significance.
2. What are the methods of separating cellular organelles? Describe the technique and mention the marker of each.

II. Short notes:**(10 x 5 = 50)**

1. Ion Channels.
2. Post Transcriptional modifications.
3. Mutation of Copper binding P Type ATPase.
4. Nucleotide excision repair.
5. Huntington's chorea.
6. Protein targeting.
7. Lysosomes.
8. Transport by group translocation with examples.
9. Programmed cell death.
10. Fluorescent in situ hybridization.

III. Reasoning Out:**(4 x 5 = 20)**

1. Gene expression regulated by Epigenetic modification.
2. Digoxin improves cardiac contractility.
3. Inclusion cell disease is due to defect in protein targeting.
4. DNA fingerprinting is used to detect the Biological parent.
