

CODE : 26753

Post graduation (M.D. - Biochemistry)

12 AUG 2026

Paper-3 (Molecular Biology, Immunology and Cancer)

Date : 12/08/2026

Marks : 100

Q-1 Write detailed notes on the following.

(20 Marks)

- Purine degradation pathway with its disorder. Explain pathogenesis of related disease in detail. Give example of the drug's action on this pathway.

Q-2 Write detailed notes on the following.

(20 Marks)

- Type and role of vector and restricted endonuclease enzyme in recombinant DNA technology.
- Explain Detection of clone colony of the bacteria after recombinant DNA process.

Q-3 Write short notes on the following.

(20 Marks)

1. Type and Genetical basis of diversification of Immunoglobulin. Explain somatic hypermutation.
2. Clinical co-relation of RNA in pathogenesis of cancer, atherosclerosis and Age related Macular Degeneration (AMD)

Q-4 Write short notes on the following.

(40 Marks)

1. Molecular defect in cystic fibrosis
2. Mechanism of adenosine in treatment of supra-ventricular tachycardia (tachyarrhythmia)
3. Quantitative Real time PCR
4. Explain "Role of supplementary folic acid in pregnant women"
5. Significance of BRAC gene
6. micro-RNA
7. RFLP for prenatal screening.
8. Effect of theophylline and Sildenafil nitrate on molecular metabolism.