

Post graduation (M.D. - Biochemistry) Preliminary Theory Examination
Government Medical College , Bhavnagar
Paper-3 ((Molecular Biology , Immunology and Cancer)

Date : 03/07/2026

Marks : 100

Q-1 Write detailed notes on following. (20 Marks)

- Purine degradation pathway with it's disorder. Impact of purine analogue on it , with it's significant.

Q-2 Write detailed notes on following. (20 Marks)

- Type and significance of all the type of RNA. Clinical co-relation of RNA in pathogenesis of cancer , atherosclerosis and Age related Macular Degeneration (AMD)

Q-3 Write short notes on the following. (20 Marks)

1. Viral integration and transposons in human genome. Molecular impact of anti-viral drugs - Acyclovir.
2. Regulation of eukaryotic gene expression

Q-4 Write short notes on the following. (40 Marks)

1. Write note somatic hyper mutation and iso-type switching of immunoglobulin.
2. Journey of human genome evolution from mutation to substitution.
3. Tumor Suppressor Gene - BRCA and p53
4. Meiosis vs Mitosis
5. Molecular defect in cystic fibrosis
6. Mechanism of adenosine in treatment of supra-ventricular tachycardia (tachyarrhythmia)
7. Quantitative Real time PCR
8. DNA dependent DNA polymerase and DNA ligase.