



LONG ESSAY (These questions carry 10 marks each)

10 x 10 = 100 Marks

1. Discuss the renal functional maturation from fetal life to the newborn.
2. Discuss the role of Kidney in maintain sodium homeostasis.
3. Compare and contrast whole genome sequencing with whole exome sequencing and its clinical applications.
4. Discuss the utility of podocytes cell line in understanding pathobiology of Kidney disease and indentifying therapeutic targets in Kidney diseases.
5. Discuss the various equations for estimating GFR and the challenges in using them in a clinical setting.
6. Discuss the molecular mechanisms and the corresponding clinical phenotype of Bartter's syndrome.
7. Discuss the application of clinical pharmacogenomics in nephrology.
8. Discuss the molecular basis of monogenic hypertension.
9. Discuss the grading of evidence in used in development of guidelines for evaluation and management of Kidney Diseases.
10. Write a note on renal tubular dysgenesis.

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