

**VINAYAKA MISSION'S RESEARCH FOUNDATION, SALEM.
(Deemed to be University)**

**M.SC.(RENAL DIALYSIS TECHNOLOGY) DEGREE
EXAMINATION February 2020
First Semester**

NEPHROGENETICS / MOLECULAR BIOLOGY

Time: Three hours

Maximum: 100 marks

Answer **ALL** questions

I. Write an Long essay on :

(2 x 20 = 40)

1. Describe in detail the process of translation in eukaryotes. Add a note on post – translational modifications.
2. Describe the steps involved in the production of a recombinant protein using recombinant DNA technology.

II. Write short notes on :

(10 x 6 = 60)

3. Site directed mutagenesis and its applications.
4. DNA modifying enzymes and their applications.
5. Antisense oligonucleotides and their uses.
6. Generation of induced pluripotent stem cells.
7. Describe the role of p53 as a tumor suppressor gene.
8. Techniques used to assess chromosomal abnormalities.
9. Explain the role of pharmacogenetics in drug metabolism with suitable examples.
10. Single nucleotide polymorphisms and their significance.
11. Describe southern blotting technique and its applications.
12. Describe autosomal recessive inheritance of diseases with suitable examples.
