

THE TAMIL NADU DR. M.G.R. MEDICAL UNIVERSITY

[LP 984]

NOVEMBER 2019

Sub. Code: 2984

M.PHARM. DEGREE EXAMINATION
(PCI New regulations 2016)
SEMESTER-I
BRANCH VI – PHARMACOLOGY – MPL
PAPER IV – CELLULAR AND MOLECULAR PHARMACOLOGY

Q.P. Code : 262984

Time : Three hours

Maximum : 75 Marks

I. Elaborate on:

(2 x 20 = 40)

1. a) What are second messengers? Give examples. Explain the functions of the following substances in intracellular cell signaling.
i) Cyclic GMP ii) NO iii) MAPK
b) Briefly explain intercellular signaling between neurons.
2. a) In detail explain various gene transfer technologies.
b) Add note on restriction enzymes.

II. Write notes on:

(7 x 5 = 35)

1. What are lipid bilayers? Give the chemical composition of lipid bilayer.
2. How SiRNA acts and controls transcription? Explain with example.
3. What is mean by necrosis? How it induces inflammatory degenerative cascade action?
4. Add a note on metabolomics.
5. What is immuno therapeutics? State its advantages and limitations.
6. What are biosimilars? Give its application.
7. Explain the principle, procedure and applications of MTT assay.
