

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

[LP 349]

OCTOBER 2019

Sub. Code: 2910

**M.PHARM. DEGREE EXAMINATION
FIRST YEAR
BRANCH III – PHARMACOGNOSY
PAPER IV – PHYTOCHEMISTRY AND BIOTECHNOLOGY**

Q.P. Code : 262910

Time : Three hours

Maximum : 100 Marks

I. Elaborate on:

(2 x 20 = 40)

1. Modern methods of extraction of Phytoconstituents.
2. Production of Vitamin B₁₂ through fermentation.

II. Write notes on:

(10 x 6 = 60)

1. Biotransformation.
2. Growth pattern in cell suspension culture.
3. Hairy root culture.
4. Optical crystallography.
5. High Performance Thin Layer Chromatography.
6. Nutritional requirements in plant tissue culture.
7. Totipotency.
8. Chemical study of the identification of phytoconstituents.
9. Hybridisation.
10. IR spectroscopy in the identification of phytoconstituents.
