

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

(LP 4266)

AUGUST 2019

Sub. Code: 4266

B.PHARM. DEGREE EXAMINATION
(Common to Regulations 2004 – IV year candidates)
THIRD YEAR
PAPER VI - PHARMACEUTICAL BIOTECHNOLOGY

Q.P. Code: 564266

Time: Three hours

Maximum: 100 Marks

I. Elaborate on:

(2 x 20 = 40)

1. Define Bacteria. Explain in detail about structure and reproduction of Bacteria.
2. Define Monoclonal Antibodies. Explain the production and applications of Monoclonal Antibodies.

II. Write notes on:

(8 x 5 = 40)

1. Explain briefly about heat sterilization.
2. Explain the factors affecting the selection of disinfection.
3. Describe Microbiological Assay of Antibiotics by disc-diffusion method.
4. Explain the types of Antigen – Antibody reactions based on agglutination.
5. Describe the production of Hepatitis–B vaccine by genetic engineering method.
6. Discuss the production of Vitamin B₁₂ by fermentation method.
7. Explain the techniques of immobilization.
8. Describe the animal cell culture Media.

III. Short answers on:

(10 x 2 = 20)

1. Give any two examples for Gram positive and Gram negative bacteria.
2. Give two examples of phenol derivative as disinfectant.
3. Give examples for sterilization by chemical agents.
4. Define Microbial biotransformation and Single cell proteins.
5. Write the types of immunity.
6. Define 'D' value.
7. Define biosensor with examples.
8. Define cloning vectors with example.
9. Define shuttle vectors.
10. Classify fermentation methods.
