

M.E. / M.TECH. DEGREE EXAMINATIONS, DEC 2020 (Held during April, 2021)

First Semester

BY18003 – Pharmaceutical Biotechnology

(*Biotechnology*)

(Regulation 2018)

Time: Three Hours

Maximum : 80 Marks

Answer **ALL** questions

PART A - (8 X 2 = 16 Marks)

1. Identify the term used for the study of drugs and their effect on the body:
a) Pharmacy b) Pharmaceutical c) Pharmacodynamics d) Physiotherapy
2. What is the reason of complicated penetration of some drugs through brain-blood barrier?
a) High lipid solubility of a drug
b) Meningitis
c) Absence of pores in the brain capillary endothelium
d) High endocytosis degree in a brain capillary
3. Which of the following is the reason for the use of lubricants?
a) To improve disintegration of the tablet
b) To decrease the friction arising between the edge of the tablet and the wall of the die during compression
c) To improve flowability
d) To exert their best effect when the compressed material emerges from the dies
4. Chemical name of Tylenol?
a) Acetyl salicylic acid
b) Crocin
c) Acetaminophen
d) Macrogol gels
5. Explicate efficacy and safety regulations in pharmaceutical industry.
6. Why are controlled release dosage forms required for the treatment of diseases?
7. What is affinity of a drug? Differentiate between agonist and antagonist
8. How are novel pharmaceutical dosage forms produced?

PART B - (4 X16 = 64 marks)

9. (a) (i) Explain the role of FDA in drug development process. **(8)**
(ii) What are the important good manufacturing practices to be followed in a solid dosage form manufacturing unit? **(8)**

(OR)

(b) What is a lead compound? How is it identified in drug development process? (16)

10. (a) (i) Write a detailed account of the manufacture of pharmaceutical suspensions. (10)

(ii) Write an account of common defects of tablet dosage forms and the methods of rectification. (6)

(OR)

(b) How are drugs absorbed by your body? Write down the factors affecting drug absorption. Explain with suitable examples how genetic variations that may affect drug action. (16)

11. (a) Describe in detail about the preparation and applications of liposomes in pharmaceutical industry. (16)

(OR)

(b) Describe the role of Nanotechnology in drug delivery. (16)

12. (a) Classify analgesic drugs with examples & discuss pharmacological actions of any two. (16)

(OR)

(b) Explain the use of recombinant proteins as pharmaceutical drugs. Mention their merits and demerits. (16)