

BACHELOR OF PHARMACY (B. PHARM.) (CBCS - 2015 COURSE)
Final Year B. Pharm. Sem-VIII :SUMMER- 2022
SUBJECT : PHARMACEUTICAL TECHNOLOGY-IV (T UE)

Day : Saturday
Date : 16-07-2022

S-13729-2022

Time : 02:00 PM-05:00 PM
Max. Marks : 60

N. B.

- 1) **Q. No. 1 & Q. No. 5** are **COMPULSORY**. Out of remaining attempt any **TWO** from each section.
- 2) Answer to both sections should be written in **SEPARATE** answer books.
- 3) Figures to the **RIGHT** indicate full marks.

SECTION-I

- Q. 1** Attempt any **FIVE** of the following: (10)
- a) Enlist ideal characteristics of drug molecule which can be formulated into controlled drug delivery system.
 - b) Enumerate advantages and disadvantages of nasal drug delivery system.
 - c) Discuss the rationale behind development of controlled release dosage forms.
 - d) Explain the concept of sustained and controlled release of drug from dosage form.
 - e) What is the difference between Topical and Transdermal drug delivery?
 - f) Discuss dosage forms used for nasal drug delivery.
- Q. 2** a) Enlist various approaches for Transdermal Drug Delivery. Explain in detail any two from the same. (05)
- b) An acid labile drug is to be given orally to a patient in a controlled manner. Describe in detail the approach for achieving the same. (05)
- Q. 3** a) Discuss various mucoadhesive dosage forms. Add a note on factors affecting mucoadhesion. (05)
- b) Give a detailed account of mechanical analysis of controlled release drug delivery using membrane permeation approach. (05)
- Q. 4** Write short notes on any **TWO** of the following: (10)
- a) Superdisintegrants
 - b) Colon targeted drug delivery system
 - c) Rate pre-programmed drug delivery systems

SECTION-II

- Q. 5** Attempt any **FIVE** of the following: (10)
- a) Describe metered dose inhalers (MDIs).
 - b) Discuss raw materials for the formation of liposomes.
 - c) Enlist components of aerosol.
 - d) What is BMR? Enlist parts of BMR.
 - e) Describe the need of COA.
 - f) Define cleaning validation. Describe cleaning techniques
- Q. 6** a) Describe in brief dry powder inhalers. (05)
- b) Give a detailed classification of liposomes. (05)
- Q. 7** a) Explain in detail the characterization of the microcapsules. (05)
- b) Describe in brief process validation. (05)
- Q. 8** Write short notes on any **TWO** of the following: (10)
- a) Evaluation of aerosols
 - b) Spray drying and spray congealing method of microencapsulation
 - c) Quality guidelines of ICH

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