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Total No. of printed pages = 4

PY 132801

Roll No. of candidate

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2017

B. Pharm. 8th Semester End-Term Examination

PHARMACEUTICS - VII

(Pharmaceutical Technology - III)

Full Marks – 100 Pass Marks – 35 Time – Three hours

The figures in the margin indicate full marks for the questions.

1. Answer the following questions (any *ten*) :

3×10=30

- Write down the various steps of preformulation studies.
- What are the objectives of controlled release dosage forms ?
- Give the advantages of osmotic pump.
- What is Carr's Index ? Give its significance.

[Turn over

- (e) How do you classify Liposomes ?
- (f) Write the size range of micro and nanoparticles.
- (g) What is partition coefficient ?
- (h) Give some examples of enteric polymer.
- (i) Mention the drawbacks of sustained release preparations.
- (j) What do you mean by "targetted drug delivery system" ?
- (k) What coating materials are used to prepare microcapsule ?
- (l) Name three phospholipids used in Liposome preparation.

2. Answer the following questions (any *four*) :

4×5=20

- (a) Why stability study of drug product is done ?
- (b) Give the limitations of Transdermal Drug delivery system.
- (c) Write down the properties of an ideal parenteral controlled release system.

- (d) How do you determine the flow property of a solid drug ?
- (e) Write a note on drug-excipient compatibility studies in dosage form design.
- (f) Give the application of nanoparticulate drug delivery system.

3. Differentiate between (any *four*) : $4 \times 5 = 20$

- (a) Microcapsule and microsphere.
- (b) Bulk density and tapped density.
- (c) True polymorphism and pseudo polymorphism.
- (d) Extended release and delayed release dosage form.
- (e) Therapeutic index and therapeutic window.
- (f) Elementary osmotic pump and push-pull osmotic pump.

4. Answer the following questions (any *three*) :

$3 \times 10 = 30$

- (a) Define the term microencapsulation. Name the different techniques used to prepare microcapsule. How do you prepare microcapsule by air suspension technology ?

$2 + 3 + 5 = 10$

- (b) What do you mean by preformulation studies ? Why such studies are performed ? Write in short about the various physical properties required to consider for preformulation studies. $2+2+6=10$
- (c) What are controlled drug delivery systems ? Mention the advantages of such dosage forms. Discuss the various factors influencing the design of controlled release dosage forms. $2+3+5=10$
- (d) Write short notes on (any *two*) : $2 \times 5 = 10$
- (i) Implants
 - (ii) Resealed erythrocytes
 - (iii) Physical evaluation of Transdermal Drug delivery system.