CS/B.PHARM/SEM-6/PT-606/09

1. .....
Signature of Invigilator

2. .....
Signature of the Officer-in-Charge

Reg. No. | | | | | | | | | | | | | | |

Roll No. of the Candidate | | | | | | | | | | | | | | |

CS/B.PHARM/SEM-6/PT-606/09

ENGINEERING & MANAGEMENT EXAMINATIONS, JUNE – 2009

PHARMACEUTICS (PHARMACEUTICAL TECHNOLOGY) (SEMESTER - 6)

Time : 3 Hours] [Full Marks : 70

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INSTRUCTIONS TO THE CANDIDATES :

1. This Booklet is a Question-cum-Answer Booklet. The Booklet consists of **32 pages**. The questions of this concerned subject commence from Page No. 3.
2. a) In **Group – A**, Questions are of Multiple Choice type. You have to write the correct choice in the box provided **against each question**.
   b) For **Groups – B** & **C** you have to answer the questions in the space provided marked 'Answer Sheet'. Questions of **Group – B** are Short answer type. Questions of **Group – C** are Long answer type. Write on both sides of the paper.
3. **Fill in your Roll No. in the box** provided as in your Admit Card before answering the questions.
4. Read the instructions given inside carefully before answering.
5. You should not forget to write the corresponding question numbers while answering.
6. Do not write your name or put any special mark in the booklet that may disclose your identity, which will render you liable to disqualification. Any candidate found copying will be subject to Disciplinary Action under the relevant rules.
7. **Use of Mobile Phone and Programmable Calculator is totally prohibited in the examination hall.**
8. You should return the booklet to the invigilator at the end of the examination and should not take any page of this booklet with you outside the examination hall, **which will lead to disqualification**.
9. Rough work, if necessary is to be done in this booklet only and cross it through.

No additional sheets are to be used and no loose paper will be provided

FOR OFFICE USE / EVALUATION ONLY

Marks Obtained

	Group – A										Group – B			Group – C				
Question Number																	***Total Marks***	***Examiner's Signature***
Marks Obtained																		

.....
Head-Examiner/Co-Ordinator/Scrutineer

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PHARMACEUTICS (PHARMACEUTICAL TECHNOLOGY)

SEMESTER - 6

Time : 3 Hours] [Full Marks : 70

GROUP – A

(Multiple Choice Type Questions)

1. Choose the correct alternatives for any *ten* of the following : 10 × 1 = 10

i) Liposomes are

a) uni-or multi-layered vesicles of phospholipids

b) type of enzymes

c) fibrinopeptides

d) red blood cells. ☐

ii) Water resistance of glass containers are tested by measuring

a) the amount of alkali released into water

b) the amount of acid released into water

c) estimation of silicate levels

d) turbidiy. ☐

iii) Pyrogens are chemically

a) Lipopolysaccharides b) Proteins

c) Amino acids d) Peptides. ☐

iv) HEPA is

a) Air filter b) Tablet coating machine

c) Capsule filling machine d) Grinder. ☐

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v) "LAL" test for parenterals detects

a) particulate matter density b) presence of fungus

c) bacterial burden d) presence of pyrogens. ☐

vi) Formulation of injections with medicaments like barbiturates, sulphonamides require

a) sterile water for injection b) WFI free from CO_2

c) WFI free from O_2 d) none of these. ☐

vii) In parenteral product BHT & Tocopherol are used as

a) buffer

b) antioxidant

c) tonicity contributor

d) synergists in case of parenteral dosage form. ☐

viii) Which of the following materials of parenteral plastic container have tendency to cause liver cancer ?

a) Polypropylene b) Polyvinyl chloride

c) Polyethylene d) Polycarbonate. ☐

ix) Dermal Silk is

a) absorbable suture b) nonabsorbable suture

c) both of these d) none of these. ☐

x) For successful design of diffusion controlled sustained release device partition coefficient *(k)* of a drug should be

a) $k > 1$ b) $k < 1$

c) $k = 0$ d) $k > 2$. ☐

xi) Micro encapsulation can be produced by the following named

a) Air suspension b) Dry granulation

c) Wet granulation d) Direct compression. ☐

xii) Water for injection differs from sterile distilled water as it if free from

a) carbon dioxide b) pyrogens

c) preservatives d) antioxidant. ☐

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GROUP – B

(Short Answer Type Questions)

Answer any *three* of the following. 3 × 5 = 15

2. What do you mean by Preformulation research ? Write the essential information required in designing the preformulation evaluation of a new drug.

3. Write a note on Micro and Nanospheres.

4. What is the difference between liposomes & niosomes ? Give the advantages of liposomes.

5. Discuss briefly about the use of oily vehicles in the formulation of parenterals. (Key words: use, advantage, disadvantage, examples.)

6. What is the difference between water for injection and sterile water for injection ? Explain the storage and distribution of WFI. 1 + 4

GROUP – C

(Long Answer Type Questions)

Answer any *three* questions. 3 × 15 = 45

7. a) What is meant by class 100 clean room ?

   b) Discuss about Air control systems being followed in the Aseptic area for parenterals formulations.

   c) What rigid rules should the personal working in such area maintain ? 4 + 6 + 5

8. Define micro encapsulation. Write notes on the method of preparation of micro-capsules. How do you evaluate micro-capsules ? 2 + 8 + 5

9. a) Discuss the role of plastics and plastic containers in modern packaging system.

   b) Give the function of the closures in pharmaceutical packaging. Give an account about the types of materials used for closures used in pharmaceutical packaging. Give their advantages and limitations. 6 + 9

10. What do you mean by 'Water for injection' for parenteral preparation ? Write down the methods for preparation, storage & distribution of water for injection. 15

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11. a) Write in detail about the following methods of parenteral powder preparation.

i) Lyophilization, its advantages and limitations.

ii) Aseptic crystallisation

iii) Spray drying.

b) How are parenteral powders administered ? 8 + 3 + 3 + 1

12. a) Define surgical dressing.

b) What is primary wound dressing ?

c) Discuss secondary wound dressing with proper example. 2 + 3 + 10

END

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