PHARMACEUTICS (PHARMACEUTICAL TECHNOLOGY - I) (SEMESTER - 4)

CS/B.PHARM/SEM-4/PT-406(1)/09
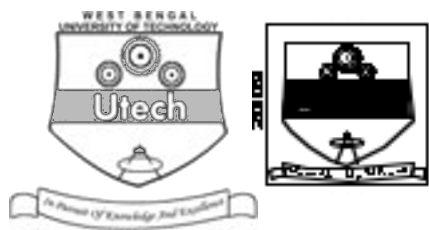
1. ....
Signature of Invigilator

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

Reg. No.

Roll No. of the Candidate

ENGINEERING & MANAGEMENT EXAMINATIONS, JUNE – 2009
PHARMACEUTICS (PHARMACEUTICAL TECHNOLOGY - I) (SEMESTER - 4)

Time : 3 Hours]   [Full Marks : 70

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.

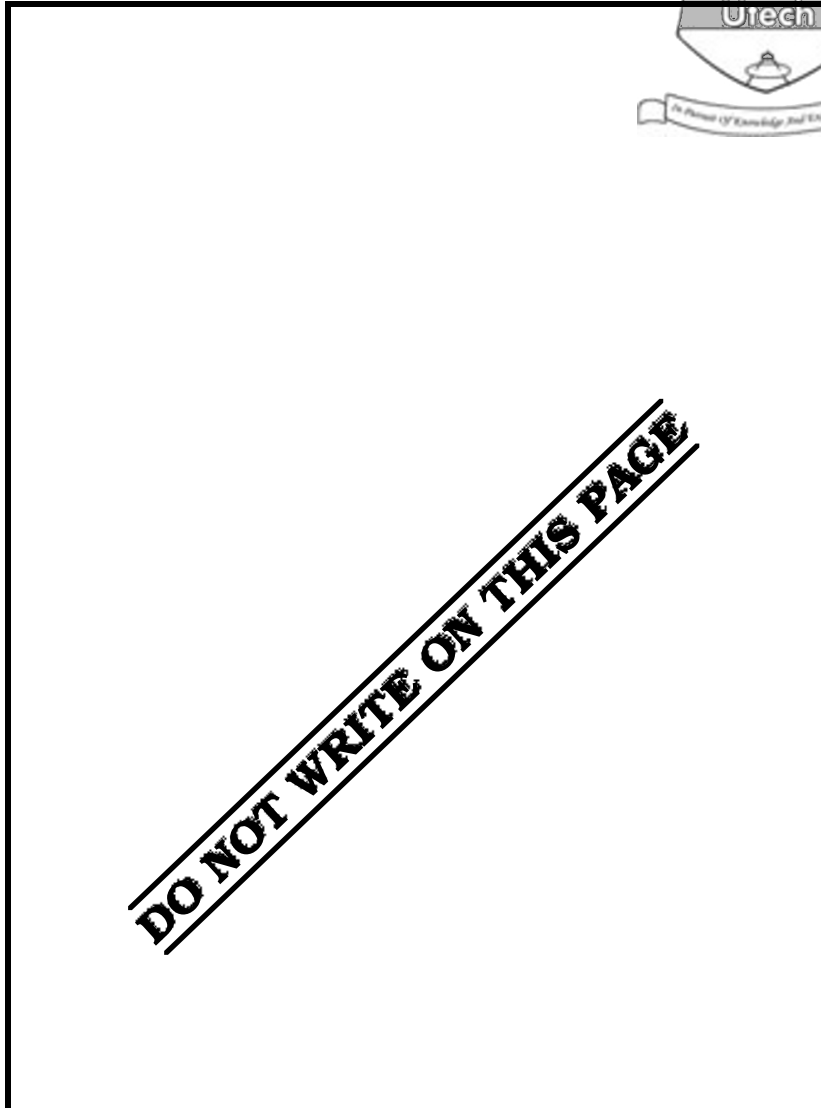### No additional sheets are to be used and no loose paper will be provided

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FOR OFFICE USE / EVALUATION ONLY
Marks Obtained

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

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

4607 (12/06)

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ENGINEERING & MANAGEMENT EXAMINATIONS, JUNE – 2009

PHARMACEUTICS (PHARMACEUTICAL TECHNOLOGY - I)
## SEMESTER - 4

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)   Bougies are

       a)   Rectal suppositories

       b)   Vaginal suppositories

       c)   Urethral suppositories

   ii)   Tear fluid should have a pH of

       a)   6·8

       b)   7·4

       c)   7.

   iii)   Collected blood should be stored at

       a) $0° – 4°C$

       b) $4°$ to $6°C$

       c) $0°$ to $6°C$.

   iv)   Aspartame is a

       a)   complexing agent

       b)   sweetening agent

       c)   flavouring agent.

   v)   Polyethylene glycol polymers are commercially known as "macrogols". They are used as ointment base and they are categorized under

       a)   oleaginous ointment base   b)   absorption base

       c)   water miscible base   d)   water souluble base.

4607 (12/06)
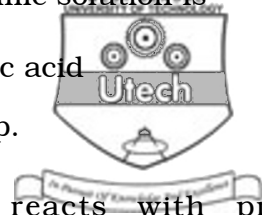
vi) The most frequently used preservative in ophthalmic solution is

    a) Sodium benzoate   b) Sorbic acid

    c) Benzallconium chloride   d) Syrup.

vii) Aerosol containers made of aluminium reacts with propellant 11 (*i.e.* Trichloromonofluoromethane) in presence of ethanol to form hydrogen gas.

To prevent this reaction which of the following measures may be taken ?

    a) Aluminium alloys are taken instead of pure aluminium

    b) The internal serface of aluminium containers is coated with epoxy coating

    c) Antioxidant is added to the formulation

    d) The aerosol containers are cooled to 4°C.

viii) The concentration of sucrose in simple syrup B.P. is

    a) 40.74% w/w   b) 60.79% w/w

    c) 66.7% w/w   d) 85% w/w.

ix) Calamine powder is a mixture of ZnO &

    a) Ferric sulphate   b) Amaranth

    c) Ferric oxide   d) Caramel.

x) Blood products are generally dried by

    a) rotary dryer   b) lyophilizer

    c) drum dryer   d) tray dryer.

xi) The moisture content of aerosol product is determined by

    a) Hydrometer   b) Gas chromatography

    c) Tag open cup   d) none of these.

xii) Which one of the following is used as preservative in ophthalmic preparations ?

    a) Benzalkonium chloride   b) Phenol

    c) Benzoic acid   d) Chlorocresol.

GROUP – B

(Short Answer Type Questions)

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

2. Mention the ideal properties of plasma substitutes.

3. What are the essential requirements of an ophthalmic preparation ?

4. Differentiate between percolation and maceration.

5. What do you mean by propellant ? Write the equation used to determine the vapour pressure of a mixture of two propellants. Classify propellant with example. 1 + 2 + 2

6. A suspending agent should impart thixotropic and pseudoplastic behaviour — Explain why.

GROUP – C

(Long Answer Type Questions)

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

7. a) What are the factors affecting the stability of a suspension ? Explain them with suitable example. 8

   b) Write a note on the suspending agents used in pharmaceutical suspensions. 7

8. a) How will you prepare dried human plasma ? 8

   b) How dried plasma is stored ? 2

   c) How human blood is collected from a donor and stored ? 5

9. Define aerosol. Write the advantage of aerosol dosage form. Write a note on testing of pharmaceutical aerosol. 1 + 3 + 11

10. a) What are the sources of contamination of a liquid preparation ? 2

    b) Name some preservatives used in liquid preparation. 2

    c) What are the criteria for ideal preservatives ? 3

    d) What are the techniques to enhance solubility of drugs ? 8

11. a) Why occational stirring is done during maceration process ?   2

    b) What is galanical ?   2

    c) What do you mean by 'Menstruum' and 'Marc' ?   2

    d) Write in detail about soxhelation method of extraction.   7

    e) What is the use of hydraulic press in extraction ?   2

———————

END