



Name :

Roll No. :

Invigilator's Signature :

CS / B.PHARM (OLD) / SEM-6 / PT-606 / 2011

2011

PHARMACEUTICS (PHARMACEUTICAL TECHNOLOGY)

Time Allotted : 3 Hours

Full Marks : 70

The figures in the margin indicate full marks.

*Candidates are required to give their answers in their own words
as far as practicable.*

GROUP – A

(Multiple Choice Type Questions)

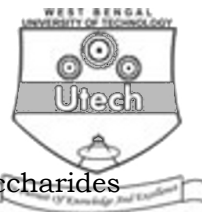
1. Choose the correct alternatives for any *ten* of the following :

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) turbidity.

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[Turn over



- iii) Chemically Pyrogens are
- Lipopolysaccharides
 - Polysaccharides
 - Polypeptide
 - none of these.
- iv) As per G.M.P. permitted limit of solid contents in water for injection is
- 100 PPM
 - 1.0 PPM
 - 0.1 PPM
 - 10.0 PPM.
- v) Weathering is related to
- Flaking of glass container
 - Loss of brilliance of glass container
 - Deposition of alkali carbonate which dissolves the silica
 - both (b) and (c).
- vi) In parenteral product BHT & Tocopherol are used as
- buffer
 - antioxidant
 - tonicity contributor
 - synergists in case of parenteral dosage form.
- vii) Which of the following materials of parenteral plastic container has tendency to cause liver cancer ?
- Polypropylene
 - Polyvinyl chloride
 - Polyethylene
 - Polycarbonate.
- viii) HEPA is
- Air filter
 - Tablet coating machine
 - Capsule filling machine
 - Grinder.
- ix) Dermal Silk is
- absorbable suture
 - nonabsorbable suture
 - both (a) and (b)
 - none of these.

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(Short Answer Type Questions)

2. Write down the B.P.C. requirements of absorbent cotton.
3. What is water for injection ? How is it prepared ?
4. Differentiate between liposomes and niosomes. Give the advantages of liposomes.
5. What do you mean by Preformulation research ? Write the essential information required in designing the preformulation evaluation of new drug.
6. Write a note on primary wound dressing.

(Long Answer Type Questions)

7. 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



8. a) What are the types of glass used in parenteral formulation. Discuss the approaches taken in the selection of glass containers for parenteral use in order to protect degradation of light sensitive products. How is colour imparted into the glass containers in actual practice. What are the problems of this type of containers ?
- b) What do you mean by Siliconization of glass containers ? How such characteristics are achieved in actual practice ? Give the objectives behind Siliconization of glass containers. $7\frac{1}{2} + 7\frac{1}{2}$
9. a) What are catguts ? Mention their uses.
- b) Describe the method of preparation of catguts in detail.
- c) Discuss the method of sterilization of different types of catguts. $2 + 8 + 5$
10. a) What is meant by class 100 clean room ?
- b) Discuss about Air control systems being followed in the Aseptic area for parenteral formulations.
- c) What rigid rules should the personnel working in such area maintain ? $4 + 6 + 5$
11. Define micro-encapsulation. Write notes on the method of preparation of micro-capsules. How do you evaluate micro-capsules ? $2 + 8 + 5$

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