

Name :

Roll No. :

Invigilator's Signature :

CS/B.Pharm(NEW)/SEM-6/PT-606/2013

2013

**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) Dose dumping is a problem in the formulation of
 - a) Compressed tablets
 - b) Modified release tablet
 - c) Hard gelatin capsules
 - d) Soft gelatin capsules.
- ii) Type II glass is
 - a) borosilicate glass
 - b) treated sodalime glass
 - c) sodalime glass
 - d) general purpose sodalime glass.

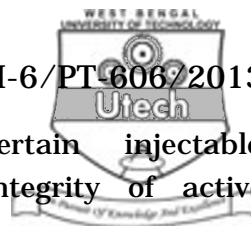
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- iii) Water for injection should not be stored at room temperature for more than
- a) 12 hrs
 - b) 24 hrs
 - c) 48 hrs
 - d) none of these.
- iv) The parenteral route most suitable for administration of oily injection is
- a) S.C.
 - b) intradermal
 - c) i. v
 - d) i.m.
- v) For dry blood plasma which of the following techniques is used ?
- a) Fluid bed drying
 - b) Freeze drying
 - c) Vacuum drying
 - d) Spray drying.
- vi) Which of the following agents is used as a osmagent in the osmotic pumps ?
- a) FeSO_4
 - b) NaCl
 - c) KMnO_4
 - d) NaCN.
- vii) LAL test for parenterals is used to detect presence of
- a) particulate matter
 - b) fungi
 - c) colour
 - d) pyrogens.

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- viii) Cryoprotectant is added to certain injectable formulations to inhibit loss of integrity of active ingredient due to
- drying
 - freezing
 - heating
 - oxidation.
- ix) Dermal silk is
- absorbable suture
 - non-absorbable suture
 - both of these
 - none of these.
- x) Lecithin is used in parenteral formulations as
- anti-oxidants
 - solubilizing agent
 - chelating agent
 - protectants.
- xi) Before washing the ampules the mouth of each ampule is rotated in Bunsen flame to melt down the rough edges. This process is called
- Flaming
 - Charging
 - Annealing
 - Grounding.
- xii) Which of the following advantage(s) is associated with liposomes ?
- Faster release of drug
 - Site specific & targeted delivery
 - Not taken up by cells of endothelial system
 - All of these.



GROUP - B

(Short Answer Type Questions)

Answer any *three* of the following. $3 \times 5 = 15$

2. a) Enumerate the properties of an ideal implantable parenteral system ?
b) Why is subcutaneous tissue considered as an ideal site for implants ? $3 + 2$
3. Write down the USP tests for evaluation of glass container.
4. Discuss briefly the use of non-aqueous vehicles in parenteral formulations.
5. Write short notes on Rubber as closure in pharmaceutical packaging.
6. Give the principle of the osmotic pumps and explain Higuchi Leeper Pump in detail.

GROUP - C

(Long Answer Type Questions)

Answer any *three* of the following. $3 \times 15 = 45$

7. What factors need to be considered under pre-formulation study of parenterals ? Write in detail about polymorphism and solubility studies in this context.
8. Discuss the role of plastics and plastic containers in modern packaging systems with special emphasis on pharmaceutical formulations.
9. a) What are liposomes ? Give the classification of liposomes.
b) Enumerate difference between liposome and niosome.
c) Mention the applications of liposomes. $5 + 5 + 5$
10. Give a schematic representation of production area of parenteral dosage forms. Discuss in detail the design of aseptic area. $6 + 9$
11. a) Define surgical dressing.
b) What is primary wound dressing ?
c) Discuss secondary wound dressing with proper example. $2 + 3 + 10$