



Name :

Roll No. :

Invigilator's Signature :

**CS/B.Pharm/SEM-6/PT-606/2010
2010**

PHARMACEUTICS (PHARMACEUTICAL TECHNOLOGY)

Time Allotted : 3 Hours

Full Marks : 70

The figures in the margin indicate full marks.

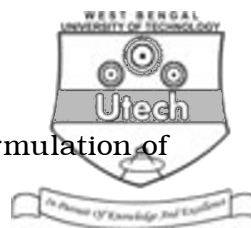
*Candidates are required to give their answers in their own words
as far as practicable.*

**GROUP – A
(Multiple Choice Type Questions)**

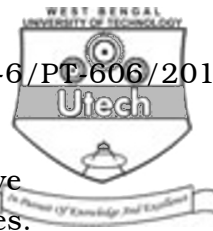
1. Choose the correct alternatives for any *ten* of the following :

10 × 1 = 10

- i) LAL test for parenterals detects
 - a) particulate matter density
 - b) presence of fungus
 - c) bacterial burden
 - d) presence of pyrogens.
- ii) Reverse osmosis is used to prepare
 - a) water for oral product
 - b) water for injection
 - c) carbonated water
 - d) none of these.



- iii) 'Dose dumping' is a problem in the formulation of
- compressed tablets
 - suppositories
 - soft gelatin capsules
 - controlled release drug products.
- iv) As a packaging material for parenteral products, plastic offers all of the following advantages over glass *except*
- unbreakability
 - improved clarity for visual inspection
 - ease of storage
 - decreased weight.
- v) Water for injection differs from sterile distilled water as it is free from
- carbon dioxide
 - pyrogens
 - preservatives
 - antioxidant.
- vi) Water resistance of glass containers are tested by measuring
- amount of alkali released into water
 - amount of acid released into water
 - estimation of silicate levels
 - turbidity.
- vii) Transdermal applications are popular for the administration of
- antidiabetic drugs
 - cardiac stimulants
 - tranquilisers
 - coronary vasodilators.
- viii) 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.



- ix) Catguts are a kind of
- a) bandage b) adhesive
c) sutures d) ligatures.
- x) Which of the following commonly available large volume dextrose solution for intravenous use is isotonic ?
- a) 2·5% w/v b) 5·0% w/v
c) 10% w/v d) 20% w/v.
- xi) For drying blood plasma which of the following techniques is used ?
- a) Spray drying b) Freeze drying
c) Vacuum drying d) Fluid bed drying.
- xii) Phosphatidic acid and its derivatives form liposomes because
- a) in a fully hydrated condition, they are conical in shape
b) in a fully hydrated condition they are cylindrical in shape
c) they contain only non-polar moieties in their structures
d) their saponification values are unusually low.

GROUP – B

(Short Answer Type Questions)

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

2. Describe the preparation of sterile powder by lyophilization.
3. What are the tests available for evaluation of pyrogenicity ? Describe any one of them.
4. Differentiate between absorbable and non-absorbable sutures.
5. Compare i.m. and i.v. route on the basis of the following points :
 - a) Site of administration
 - b) Volume of injection
 - c) Duration of drug action
 - d) Particle size of formulation
 - e) Type of formulation.
6. Write a short note on temper-resistant packaging.



GROUP – C

(Long Answer Type Questions)

Answer any *three* of the following.

3 × 15 = 45

7. a) What do you mean by class 100 clean room ?
b) Describe the method of preparation, storage and distribution of water for injection.
c) Describe the methods of sterility testing of a parenteral preparation. 2 + 8 + 5
8. a) Describe the composition and reactivity of glass containers.
b) Write some significant physical properties of rubber closures.
c) Discuss the method of cleaning of rubber and plastic components used in parenteral product packaging. 4 + 4 + 7
9. What is the significance of preformulation study ? What are the factors to be considered for formulation of the parenterals ? Discuss polymorphism & solubility of drugs as preformulation factors. 4 + 2 + 4 + 5
10. What is surgical dressing ? Classify it. Briefly describe about crepe bandage, Plaster of Paris, paraffin ganze dressing. What do you mean by 'boilable' and 'non-boilable' catgut ? How is catgut sterilized ? 1 + 1 + 3 + 3 + 3 + 2 + 2
11. Define Novel Drug Delivery System (NDDS). Write down the advantages & disadvantages of controlled release DDS. Describe briefly on different types of Transdermal Drug Delivery System (TDDS). Describe one approach in detail. 2 + 4 + 5 + 4
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