



Name :

Roll No. :

Invigilator's Signature :

CS/B.Pharm/SEM-6/PT-610B/2010

2010

PACKAGING 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) Plasticizers are added in plastics to provide
 - a) Flexibility
 - b) Mechanical strength
 - c) Heat stability
 - d) None of these.
- ii) Strip/Blister package is used for the storage of
 - a) Aerosols
 - b) Jellies
 - c) Tablets
 - d) Liniments.
- iii) Amber colour in glass is produced by using
 - a) Calcium oxide
 - b) Iron oxide
 - c) Zinc oxide
 - d) Alumina.



- iv) Which of the following is not a thermoplastic ?
- a) HDPE
 - b) PVC
 - c) Melamine formaldehyde
 - d) PET.
- v) Polyethylene terephthalate (PET) is a condensation polymer formed by the reaction of terephthalic acid with
- a) Ethanol
 - b) Glycerol
 - c) Ethylene glycol
 - d) Propylene glycol.
- vi) A very practical method of disposing plastic containers is
- a) Incineration
 - b) Open dumping
 - c) Sanitary landfill
 - d) Composing.
- vii) Which of the following metal containers is not suitable for packaging of drugs and cosmetics ?
- a) Shallow drawn containers
 - b) Deep drawn containers
 - c) Formed aluminium foil containers
 - d) Impact extruded containers.
- viii) Which of the following tests is not done over Rubber closures for injectables ?
- a) Sterilization test
 - b) Leakage test
 - c) Fragmentation test
 - d) Self-sealability test.

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GROUP – B

(Short Answer Type Questions)

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

2. How does permeation ill affect plastic contained substance ?
3. Write a short note an siliconised glass containers.
4. Discuss roll-on type closure.
5. Write a note on polyethylene as a packaging material.
6. Differentiate between 'Tamper resistant' and 'Tamper evident' packaging.

GROUP – C

(Long Answer Type Questions)

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

7. Write in detail about different types of drug-plastic interactions.
8. Give a detail account on packaging of solid oral dosage forms.
9. "Aerosols are the classic example of successful package-product system." Explain briefly.
10. Why is glass preferred as packaging material ? What are its drawbacks ? Give a brief note on Type I & Type II glasses. What do you mean by light-resistant containers ? Explain briefly. $5 + 7 + 3$
11. What are the advantages and disadvantages of metal as packaging material ? Discuss briefly on shallow drawn containers. Write a note on sanitary landfill as a method of disposing plastic containers. $4 + 5 + 6$

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