	Utech
Name:	
Roll No.:	In dynamic (s) Exemplify 3 and Explaint
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 :

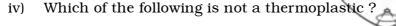
 $10 \times 1 = 10$

- 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.

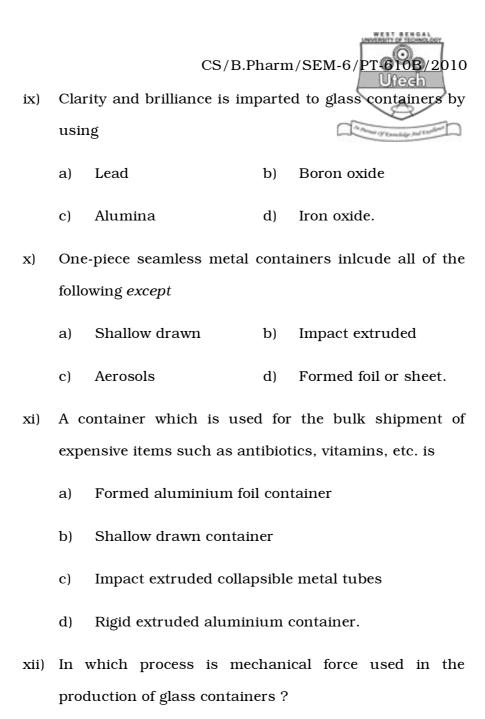
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- a) HDPE
- b) PVC
- c) Melamine formaldehyde
- d) PET.
- v) Polyethylene terephthalate (PET) is a condensation polymer formed by the reaction of terephthalic acid with
 - a) Ethanol
- b) Glycerol
- c) Ethylene glycol
- d) Propylene glycol.
- vi) A 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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b)

d)

Casting

Drawing.

a)

c)

Blowing

Pressing

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(Short Answer Type Questions)

Answer any three of the following.



- 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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