	Utech
Name:	
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Invigilator's Signature :	

CS/B.Pharm(OLD)/SEM-6/PT-610B/2011 2011

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) Aerosol packaging container must resist pressure of
 - a) 500 psig
- b) 140-180 psig

- c) 40 psig
- d) 20 psig.
- ii) Gasket is made of
 - a) Buna-N
- b) Neoprene rubber
- c) Both (a) and (b)
- d) Aluminium.

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- iii) Plastics are sterilized with
 - a) Steam under pressure
 - b) Dry heat
 - c) Ethylene oxide
 - d) Autoclaving.
- iv) Percentage of SiO $_2$ in Boro-silicate glass is
 - a) 60%

b) 70%

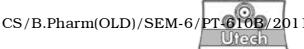
c) 75%

- d) 80%.
- v) Water attack test is used to check the alkalinity in
 - a) Type-I glass
- b) Type-II glass
- c) Type-III glass
- d) all of these.
- vi) Systemic injection test is used for evaluating which type of container?
 - a) Plastic material
- b) Rubber material

c) Metals

- d) Glass material.
- vii) In preparation of rubber, sulphur is used as
 - a) Accelerators
- b) Vulcanising agent
- c) Activator
- d) Softeners.
- viii) Which one is known as push-through pack?
 - a) Strip pack
- b) Blister pack
- c) Bubble pack
- d) Pouch pack.

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- ix) Photo-sensitive products are kept in
 - a) Well closed container
 - b) Air tight container
 - c) Light resistant container
 - d) Aerosol container.
- x) A very practical method of disposing plastic containers is
 - a) Incineration
- b) Open dumping
- c) Sanitary lanfill
- d) Composing.
- xi) Which one does *not* come under tamper resistant pack?
 - a) Blister package
- b) Strip package
- c) Bubble package
- d) Pouch pack.
- xii) Amber colour in glass in produced by uisng
 - a) Calcium oxide
- b) Iron oxide
- c) Zinc oxide
- d) Alumina.

GROUP - B

(Short Answer Type Questions)

Answer any *three* of the following.

 $3 \times 5 = 15$

- 2. Define Tamper resistant packaging with suitable example.
- 3. What is strip packing?
- 4. What are the options available for packing semisolid dosage forms?
- 5. Write notes on the following:
 - a) Bubble pack
 - b) Formed aluminium foil container.

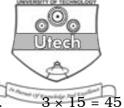
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(Long Answer Type Questions)

Answer any three of the following



- 6. Write in detail about the containers used for packaging of parenterals and ophthalmics.
- 7. What do you mean by solid waste? Describe critically the different ways of disposing plastic containers.
- 8. Explain the preparation and evaluation of glass containers.
- 9. a) What are Thermoplastic and Thermosetting plastic?
 - b) Write in detail about different types of drug-plastic interaction. 3+12
- 10. Write in detail about the research and development aspects on packaging materials.

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