



Name : .....

Roll No. : .....

Invigilator's Signature : .....

**CS/B.Tech/FT/SEM-7/FT-701/2012-13**

**2012**

**FOOD 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) Which one of the following natural pigments acts as corrosion accelerator of metal cans ?
- a) Xanthophylls                      b) Chlorophyll
- c) Myoglobin                        d) Anthocyanin.
- ii) Which one of the following is a cause of safety concern in vacuum-packaged sausage ?
- a) *Salmonella enteritidis*
- b) *Listeria monocytogenes*
- c) *Clostridium botulinum*
- d) *Bacillus cereus*.



- ## GROUP – B

Answer any *three* of the following.

$$3 \times 5 = 15$$

- $$2 + 2 + 1$$

$$2\frac{1}{2} + 2\frac{1}{2}$$



**GROUP - C**  
**( Long Answer Type Questions )**

Answer any *three* of the following.

$3 \times 15 = 45$

7. Elaborate on three-piece can manufacturing process from a flat-blank tin plate including its double-seam sealing process.
8. Elaborate on melt-spinning process of plastic film manufacturing using a neat schematic diagram. Briefly describe polylactic acid, one of the most commonly used biobased plastic packaging materials. Explain the principle of corrosion in metal cans.  
 $7 + 4 + 4$
9. What are the common sorbants, permeating and migrating substances – generally relevant in interactions between food and packaging materials ? Highlight their adverse sequences. "Different factors affect food-packaging interactions." Comment on the statement. Draw a neat diagram of stress-strain curve for flexible packaging.  
 $2 + 4 + 7 + 2$
10. What is the purpose of lamination of packaging materials ? Mention some flexible packaging materials which can be used for lamination purposes.  
 $5 + 10$
11. Discuss the packaging requirement for various preprocesses foods, fresh fruits and vegetables, carbonated and non-carbonated beverages.  
 $5 + 5 + 5$
12. Answer any three of the following :  $3 \times 5$ 
  - a) What is tin free steel ? Mention its uses.
  - b) Antimicrobial and edible materials in food packaging system.
  - c) How can you classify the food packaging materials based on their various functions ?
  - d) Barcodes and other marking of food packages for consumer service.
  - e) Disposal of packaging materials.