

Total number of printed pages—4

53 (FPT 601) FPTC

2017

FOOD PACKAGING TECHNOLOGY

Paper : FPT 601

Full Marks : 100

Time : Three hours

The figures in the margin indicate full marks for the questions.

Answer **any five** questions out of **seven**.

1. (a) Define packaging and highlight its significance. 5
- (b) Classify packaging type with few examples. 5
- (c) Define water activity. Explain the relationship of water activity with food spoilage and packaging. 5
- (d) Explain about labeling of food products after packaging. 5

Contd.

2. Write short notes on **any four** of the following : 5×4

(a) Vacuum packaging

(b) Aseptic packaging

(c) Gas packaging

(d) Shrink packaging

(e) Rigid packaging

(f) Semi-rigid packaging.

3. (a) Describe the manufacturing process of glass bottle/container by press and blow process. Give a neat diagram.

10

(b) Write the advantages and disadvantages of glass for selection as a food packaging material.

6

(c) Explain few testing done for/on glass container.

4

4. (a) Describe the manufacturing process of 2-piece metal Can by DWI and DRD process. Give a neat diagram for all the steps involved.

15

- (b) What is double seamer ? How it works ? 5
5. (a) What is active food packaging system ? 3
- (b) Explain about different types of active scavenging systems (Absorbers) and active releasing system (Emitters). 12
- (c) How it helps to improve the food safety and quality ? 5
6. (a) Why plastic polymeric materials are selected for food packaging applications ? Explain it. 5
- (b) What is plasticizer ? Give few examples. 3
- (c) Differentiate between "thermoplastic" and "thermoset plastic" with giving some examples. 4
- (d) Explain *at least two* types of moulding machines used for plastic packaging. 8

7. (a) Define Bioplastic. Describe the properties and importance of *at least three* bioplastic material that can be used for food packaging. 8

(b) What is Intelligent(s) and smart packaging ? How it helps to improve the food quality and safety ? 12