

Total number of printed pages-4

53 (FPT 611) FPTC IV

2014

## FOOD PRODUCT TECHNOLOGY-IV

(Bakery, Confectionary and Extruded Products)

Paper : FPT 611

Full Marks : 100

Time : Three hours

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

*Answer any five questions from seven.*

1. (a) Explain what is FSSAI. 2
- (b) Differentiate between chewing gum and bubble gum in *any five* points with respect to the regulations laid down by FSSAI Standards. 3
- (c) Differentiate the standards of chocolate according to CODEX and FSSAI. 5

Contd.

- (d) Describe the safety issues for bakery and confectionery products. Give reference with the help of 3 micro-organisms. 10
2. (a) On the basis of leavening, explain the *four* categories of bakery products. 4
- (b) Write *one* function *each* for the ingredients : egg, water, fat and improvers in bakery products. 4
- (c) Explain the theory of baking. 3
- (d) Describe multi-cycle tray oven and tunnel oven. 6
- (e) Explain the use of sheeters in bakery industries. 3
3. (a) What are the advantages of extrusion process ? 2
- (b) Explain the working principle of an extruder with a proper diagram. 5
- (c) What are the *two* types of extruders ? Explain them. 5

- (d) Write a note on the application of extrusion technologies in food processing. 8
4. (a) Describe the various changes that are brought about in the functional properties of food components during extrusion process. 6
- (b) What is the need for pre-extrusion treatment? 1+3=4
- (c) How does extrusion affect on the quality of foods? 4
- (d) Explain the process of manufacture of *any two* extruded products. 3+3=6
5. (a) What is Falling Number? Which test is used to determine it and how? 2+4=6
- (b) Write the complete procedure and inferences for Mixograph *OR* Extensiograph. 7
- (c) Explain the various types of sweeteners used in confectionary products. 3
- (d) What is Fat Bloom? What is its cause and how can it be corrected? 1+1+2=4

6. (a) Explain the *two* types of confectionary moulders with their proper diagrams. 5

(b) What are the various cocoa products ? Draw the flow diagram of cocoa processing and manufacture. 2+4=6

(c) What is the composition of gum base ? Describe the production process of confectionary gum. 2+5=7

(d) What are the health benefits of sprouted grains ? 2

7. Write notes on : (*any five*) 5×4=20

(a) Types of Mixers

(b) Rounders

(c) Macaroni products

(d) Breakfast cereals

(e) Interfering agents

(f) Alveograph

(g) Use of extruder as a Bioreactor

(h) Defects in bakery products.