

**B.Sc. – II Semester IV Examination,
FOOD PROCESSING AND PACKAGING
Processing Of Bakery Products (BFPT-401)**

Subject Code:70031

Question Bank

Q.1 Define the following term.(2marks)

1. Creaming
2. Conduction
3. Beating
4. Proofing
5. Heat flux
6. Baking
7. Whipping
8. Convection
9. Fermentation
10. Radiation
11. Blending
12. Fermentation
13. Oven Air velocity
14. Folding
15. Dough molding
16. Patent flour
17. Moulding
18. Cutting
19. Kneading
20. Biscuits
21. Bread
22. Cake
23. Rich dough
24. Lean dough
25. Laminated dough

Q.2 Long note

(10 marks)

1. Describe in detail about role of ingredients used in production of bakery products.
2. Write working, principle, application of batch and continuous mixer.
3. What is baking? Describe principles of baking involved in bakery products
4. Write working, principle, application of direct fired and indirect fired oven.
5. What are the different types of cakes? Describe the manufacturing process of cake.

6. Describe in detail different mixing techniques and write principles involved in baking step by step
7. What are the different types of Biscuits? Describe process of manufacturing of Biscuits in detail.
8. What is the difference between Baking soda & baking powder? Write a note on role of ingredients used in bakery.
9. What is Oven? Enlist different types of Oven and their use for specific bakery product.
10. Describe in detail principles & applications of Dough mixer & oven
11. What is oven? Describe in detail oven process parameters
12. What are sweeteners? Describe in detail types of sugar and their functions in bakery products.
13. What is leavener? Describe in detail difference between Biological & chemical leavening agents.
14. What are the different types of Biscuits? Describe different methods of biscuit making by their shaping & forming.
15. What is bread? Describe in detail CBP & other methods.

Q.3.Short Notes.

(4 marks)

- 1) Moulding machine
- 2) Fermentation & Proofing
- 3) Types of Oven
- 4) Leavening agents
- 5) Oven Heat flux
- 6) Process Parameters
- 7) Types of flour
- 8) Types of yeast
- 9) Direct fired oven
- 10) Principles involved in baking
- 11) Sugars & Sweeteners
- 12) Manufacturing of Biscuits
- 13) Bread
- 14) Oven temperature
- 15) Cake
- 16) Dough mixer
- 17) Types of dough
- 18) Heat transfer methods in baking
- 19) Indirect fired ovens
- 20) Methods of Biscuit making
- 21) Fats & their function used in bakery products
- 22) Methods of bread making

- 23) Types of dough
- 24) Types of biscuits
- 25) Mixing methods used in bakery processing
- 26) Moulding machine& Proofing
- 27) Oven Humidity
- 28) CBP
- 29) Types of cakes
- 30) Food colours used in bakery processing

B. Sc. II (Semester IV) Examination
FOOD PROCESSING & PACKAGING
Processing of Confectionary Products (BFPT-402)

Q1. Define following term/answer in one sentence. (5×2=10)

- 1) Define and Enlist the ingredients used in Chocolate Processing.
- 2) Brittle
- 3) Fudge.
- 4) Boiling in confectionary.
- 5) Sorbitol.
- 6) Relative humidity.
- 7) Mannitol
- 8) Refining in Chocolate processing.
- 9) Toffee
- 10) Hard candy.
- 11) Crystallization.
- 12) Equilibrium relative humidity.
- 13) Natural sweetener.
- 14) conching
- 15) cocoa butter substitute
- 16) winnowing
- 17) xylitol
- 18) maltitol
- 19) Isomalt
- 20) Enorbing

- 21) Lactitol
- 22) Chocolate refining
- 23) fat bloom
- 24) jelly
- 25) gum base

Q2. Answer the following (any two) (2x10 =20)

- 1) Describe Chocolate processing in detail with flowchart.
- 2) What is Chewing gum. Explain the process of making chewing gum.
- 3) Define in detail Sugar manufacturing process with flowchart
- 4) Explain importance of confectionary products with examples.
- 5) Importance of confectionary in food industry.
- 6) Explain Hard boiled confectionary.
- 7) Explain Cocoa processing with flowchart.
- 8) Cocoa butter substitutes.
- 9) Explain defects in confectionary.
- 10) Comment on a) xylitol b) isomalt.
- 11) Explain soft boiled confectionary.
- 12) Explain functions of ingredients in chewing gum.
- 13) Explain types of confectionary products in detail.
- 14) Explain gelatin sweets in brief.
- 15) Explain the principle involved in confectionary in brief.

Q3. Write short note (any four) (4x5 =20)

- 1) Fudge and Pastillage.

- 2) Aeration and Crystallization.
- 3) Sorbitol.
- 4) Process of Chewing gum.
- 5) Sweetener
- 6) Classification of confectionary.
- 7) Conching and Tempering.
- 8) Cocoa butter substitute.
- 9) Processing of Cocoa beans.
- 10) Clarification and Filtration in sugar manufacturing process.
- 11) Types of confectionary.
- 12) Mannitol.

- 13) Aeration.
- 14) Classification of confectionary.
- 15) Cocoa butter substitute.
- 16) Fondant and Brittle.
- 17) Maltitol.
- 18) Chocolate fat bloom and prevention of fat bloom.
- 19) Isomalt
- 20) Gum base
- 21) Types of chocolate.
- 22) Fondant and jelly
- 23) Glucose syrup and corn syrup.
- 24) Chocolate refining, molding and enrobing.
- 25) Caramel and toffee.
- 26) Polydextrose

27) Ingredients in confectionery.

28) Fruit chews.

29) Ingredients in chewing gum.

30) Chocolate sugar bloom and prevention of sugar bloom.

FOOD PROCESSING & PACKAGING
Processing Of Oil Seed and Fats (BFPT-403)
Sub code: 70033

Q1. Define the following terms.

(5×2=10)

1. Protein Concentrate
2. Lard
3. Fractionation
4. Neutralization of oil.
5. Types of oil seed.
6. State any two solvent required for solvent extraction of oil.
7. Dehulling
8. Fractionation.
9. Peanut butter
10. Bleaching
11. Winterization of oil.
12. Flaking of oil seed.
13. Fractionation.
14. Protein Isolate.
15. Cocoa Butter
16. Clarification of oil
17. Neutralization (alkali refining)
18. Deodorization techniques
19. Hydrogenation of oil
20. Inter-esterification of oil
21. Fractionation of oil
22. Winterization of oil
23. Lard

24. Tallow

25. Shortenings

Q. 2 Answer the following (10 Mark)

1. Explain the process of solvent extraction of oil with flowchart
2. Describe in detail Cotton seed oil production.
3. What is refining of oil? Give in detail different steps of refining of oil.
4. Explain in detail rice bran oil extraction.
5. Explain in detail mechanical extraction of oil.
6. What is degumming of oil? Add a note on deodorization of oil.
7. Explain in the detail solvent extraction of oil.
8. What is refining of oil. Explain different steps of refining of oil.
9. Give detail of protein concentrate
10. State the different physical properties of oil.
11. What is Mechanical pressing of oil seed.
12. Explain Rice bran composition. Extraction of oil.
13. Hydrogenation of oil
14. Inter esterification of oil.
15. What is Cocoa butter. Explain in detail in cocoa butter alternatives.

Q3. Write a note on following (4 Mark)

1. Ghani method of oil extraction.
2. Cocoa butter equivalent.
3. Inter-esterification.
4. Physical properties of Oil.

5. Winterization of oil.
6. Blending of oil.
7. What is the pre-treatment required for processing of oilseed ?
8. State the different physical properties of oil.
9. Hydraulic pressing of oil seed.
10. Winterization of oil.
- 11.** Protein Isolate.
12. Hydrogenation
13. Degumming.
14. Screw Press.
15. Chemical properties of oil.
16. Cocoa butter equivalent.
- 17.** Rice bran composition.
18. Screen-Air cleaner cum grader
19. Functional and nutritional importance of dietary oil seeds and fats
20. chemical composition of oil
21. Mechanical extraction of oil
22. Solvent extraction of oil.
23. Clarification of oil
24. Neutralization (alkali refining)
25. Deodorization techniques
26. Hydrogenation of oil
27. Inter-esterification of oil
28. Fractionation of oil
29. Winterization of oil
30. Lard
31. Tallow
32. Shortenings
33. Peanut butte

**B. Sc. II (Semester IV) Examination,
FOOD PROCESSING AND PACKAGING
Processing Of Plantation Crops and Spices
(BFPT – 404)**

Q1. Define the following terms/ Answer in one sentence each (2 Mark)

1. Define spice
2. Name two major spices
3. Define Oolong tea
4. Name adulterant in Coriander powder
5. Write down the botanical name of Coffee
6. Define Oleoresins
7. Name two minor spices
8. Write down adulterant in black pepper
9. Define black tea
10. Write down adulterant in turmeric powder
11. Define spice oil
12. Define adulteration
13. Define Green tea
14. Write down the adulterant in mustard seeds
15. Write down adulterant in saffron
16. Define plantation crops
17. Define coffee
18. Define tea
19. Define adulteration
20. Define adulterant
21. Define major spices

22. Define minor spices
23. Name two adulterants in spices
24. Define Instant tea
25. Name various spices

Q2. Answer the following in brief (Long answer) (10 Mark)

1. Explain Cashew nut processing with flow sheet.
2. Describe adulteration with various examples.
3. Explain Ginger processing in details.
4. Explain Oolong tea in detail
5. Explain green tea in detail
6. Explain black tea processing in detail.
7. Explain use of different spices.
8. Elaborate turmeric powder processing with flow sheet.
9. Explain coffee processing with flow sheet.
10. Define spice and explain Oleoresins with flow sheet.
11. Explain black pepper processing in detail.
12. Explain coffee processing in detail
13. Explain production of spices in India
14. Explain adulteration of spices
15. Explain major spices and their adulteration with various examples

Q3. Answer the following in Short (5 Mark)

1. Explain conventional and non-conventional tea with example.
2. Write short note on Cinnamon processing.
3. Explain major and minor spices with example.

4. Write down the method to detect adulteration in Mustard seeds.
5. Elaborate processing of Turmeric powder.
6. Explain various use of spices in detail.
7. Write down the method to detect adulteration in chili powder.
8. Write down the method to detect adulteration in asafoetida.
9. Describe major spices.
10. Write down post-harvest handling of chili.
11. Elaborate production of spices in India.
12. Write down post-harvest handling of Vanilla.
13. Write down the method to detect adulteration in coriander powder.
14. Write down the method to detect adulteration in mustard seeds.
15. Describe minor spices.
16. Explain different properties of spices.
17. Explain fenugreek processing in detail.
18. Elaborate chili powder processing.
19. Explain chemical composition of various spices
20. Explain classification of spices
21. Explain black pepper processing
22. Explain spice oil and need of spice oil
23. Explain ginger processing
24. Explain minor spices and adulterant in it
25. Explain fermentation and process of oolong tea
26. Explain fermentation time and process of black tea
27. Explain fermentation time and process of green tea
28. Explain the difference in processing of oolong tea, green tea and black tea
29. Explain various properties of Major spices
30. Explain various properties of minor spices

B.Sc. – II (Sem.-IV) Examination, _____
FOOD PROCESSING AND PACKAGING
Food Biochemistry (BFPT-405)
Subject Code: 70035

Q1. Answer in one sentence.

- 1) What is NAD?
- 2) Define enzyme
- 3) Where does glycolysis occurs?
- 4) What is the long form of TCA
- 5) How much NADH is produced by glycolysis
- 6) Define- Antioxidants
- 7) What is the end product of glycolysis?
- 8) What is FAD?
- 9) Name any two enzyme involved in fatty acid synthesis
- 10) What is coenzyme?
- 11) What is the function of hexokinase in glycolysis?
- 12) Define-Lipids
- 13) Define-gluconeogenesis
- 14) What is cofactor?
- 15) Define-antioxidant
- 16) Name any two enzyme involved in glycogenesis
- 17) What is glycogenesis?
- 18) Define glycogenolysis
- 19) Where dose TCA occurred?
- 20) Write down any two examples of free radicals

- 21) What is ribozyme?
- 22) Define- Holoenzyme
- 23) Define -Apoenzyme
- 24) Define – Inducible enzyme
- 25) What is isomerase?

Q.2 Long answer question

- 1) What is glycolysis? Describe it brief.
- 2) Write in detail classification of enzymes with specific examples.
- 3) What are free radicals? Explain in detail examples of free radicals and their harmful effects.
- 4) What is β oxidation? Explain the β oxidation pathway.
- 5) Derive Michaelis Menten equation.
- 6) What is TCA? Explain in detail steps involved in glycolysis.
- 7) What is glycogenesis? Explain in detail glycogenesis pathway
- 8) Explain in detail lipid biosynthesis pathway
- 9) What is glycolysis? Write in detail steps involved in glycolysis.
- 10) Describe in brief non oxidate phase of HMP pathway
- 11) Explain in detail glycogenolysis
- 12) Describe in brief oxidative phase of HMP pathway
- 13) What is lipid? Explain lipid biosynthesis pathway
- 14) Describe in detail characteristics of enzyme
- 15) Explain in detail vitamin derived co-enzyme

Q. 3) Short note

1. Antioxidants

2. Give the structure and function of NAD⁺
3. Cori cycle
4. Fatty acid synthase
5. β -oxidation
6. Gluconeogenesis from amino acid
7. Examples of free radicals
8. Antioxidants
9. Function of lipids
10. Effect of substrate concentration on enzyme activity.
11. Harmful effects of free radicals
12. Hydrolases
13. Effect of pH on enzyme activity
14. Benefits of natural antioxidants and their sources
15. Oxidoreductase
16. Non-oxidative phase of HMP pathway
17. Function of lipids
18. Gluconeogenesis from lactate
19. Ligases
20. Flavin adenine dinucleotide
21. Triacylglycerol
22. Carnitine shuttle
23. Free radicals
24. Alanine-Glucose cycle
25. Effect of temperature on enzyme
26. Oxidative phase of HMP
27. Application of glycolysis
28. Energetics of TCA
29. Energetics of glycolysis
30. Application of HMP pathway

FOOD PROCESSING AND PACKAGING
Packaging II
(BFPT-406)
QUESTION BANK

Q. 1 Answer the following. (One Sentence) (2 Mark)

- 1) What is PP? Give its example.
- 2) Define packaging
- 3) Define Elastomer with example.
- 4) Give full form LLDPE
- 5) Define natural polymer.
- 6) Give 2 factors influencing the choice of oxygen absorbents.
- 7) HDPE stands for
- 8) Name 2 fruit products and its packaging materials.
- 9) Define cereals.
- 10) Give full form of BOPP
- 11) What is semi-synthetic polymer?
- 12) What is weaning foods?
- 13) PVC stands for
- 14) What is primary packaging?
- 15) Name 2 milk products and its packaging materials.
- 16) What is Transmissivity?
- 17) Define Polymer
- 18) What is smart packaging?
- 19) LDPE stands for
- 20) What is oxygen absorber?
- 21) Define Shelf life
- 22) Give full form of HMHDPE

- 23) Define polyester
- 24) What is intelligent packaging?
- 25) What is secondary packaging?

Q.2 Answer the following. (Long Answer) (10 Mark)

1. Explain in details types of packaging.
2. Explain in detail thermoplastic polymers with its characteristic, examples, mechanical and functional properties.
3. Enlist and explain various plastic and non-plastic packaging materials for fruits and vegetables packaging.
4. Explain in detail unit load packaging with advantages of palletization.
5. Enlist and explain different plastic tests.
6. Enlist various methods of fruits and vegetable packaging. Explain consumer packaging.
7. Explain in detail thermoplastic polymers with its functional and mechanical properties.
8. Explain in detail packaging of meat and meat products.
9. Write down the advantages and disadvantages of oxygen absorbent.
10. Define plastic. Explain in detail tests for plastic packaging
11. Explain in brief transport packaging
12. Explain other ways to classify polymers.
13. Explain packaging in details.
14. Explain processing and converting of thermoplastic polymers
15. Explain application of oxygen absorbent for extension of shelf life of food.

Q.3 Answer the following. (Short Answer) (5 Mark)

1. Write short note on plastic packaging material.
2. Give the applications and benefits of oxygen absorbents in food industry.
3. Elaborate on food labelling regulations in India
4. Write short note on thermoplastic polymer.
5. List various beverages and its packaging materials.
6. Elaborate on plastic banned in India.
7. Write short note on techniques and method used for packaging
8. Elaborate on food safety hazards associated with packaging material.
9. Give classification of beverage and the packaging requirements for all types of beverages.
10. Write short note on oxygen absorbent.
11. Elaborate on oxygen absorbents.
12. Give full forms of:- i) PS ii) PET iii) LDPE iv) HMHDPE v) PP
13. Write short note on shelf life evaluation of packed product.
14. Give various packaging materials used for packaging of cereal and cereal products.
15. Elaborate on food safety problems associated with packaging material.
16. Write short note on safety consideration in food packaging
17. Give reasons why plastic is harmful?
18. What are polymers? Enlist classification of polymers.
19. Write short note on package labeling.
20. Elaborate on food labelling regulations in India
21. Give 5 advantages and disadvantages of oxygen absorbents
22. Write short note on food safety.
23. Give criteria for selection of milk packaging material for fluid milk
24. Elaborate on thermoplastic polymers.

25. Write short note on food packaging and environment recycling.
26. Elaborate on plastic banned in India.
27. List 5 cereal products and give different packaging materials used for cereal products.
28. Write short note on shelf life evaluation of packed products.
29. Explain in brief plastic packaging
30. Describe packaging in brief.

