

B.E (FTBE) THIRD YEAR, FIRST SEMESTER EXAMINATION 2025

FOOD PROCESS TECHNOLOGY - II

Time : Three hours

Full Marks : 100

PART- I (50 MARKS)

ANSWER Q1 AND ANY TWO FROM THE REST

Q1. Fill in the blanks:

10 × 1 = 10

- a. Post-bleaching removescolor in oils.
- b.process minimizes waste water generation and maximizes co-product value in edible oil extractions.
- c. Deodorized oils have% FFA.
- d. Oil content of the raw material before it enters the production line is preferably estimated by.....process.
- e. Continuous bleaching process entails huge expenditure due to.....
- f. Cooker temperature range of(°C) is recommended for cottonseeds.
- g. Low temperature distillation ensuresin cake/meal.
- h.chiefly constitutes the hydrophobic exterior in reverse micelles in oil processing.
- i. In a continuous counter-current multistage extractor, a small number of contact stages are needed if flakes/solvent ratio is.....
- j. Refining efficiency =

Q2. Comparatively evaluate the following for vegetable oils (any 10):

10 × 2 = 20

- a. Bleaching for Corn oil vs. Bleaching for Palm oil
- b. Bar huller vs. Disc huller
- c. Lipase activity in Soybean oil vs. Cottonseed oil
- d. Oil content in seeds Pre-hulling vs. Post-hulling
- e. Yields of oil and cake from peanuts (50% oil and 3% moisture) pressed to leave 5% oil in cake (5% moisture) 'considering' vs. 'ignoring' moisture loss.
- f. Flaking vs. Grinding of oilseeds
- g. Bucket extractor vs. Belt extractor for soybean oil
- h. Principle of Counter-current multistage extraction vs. Co-current single stage extraction
- i. Differences in steps of manufacture for production of Summer oils vs. Winter oils
- j. Roles of heat exchangers in Summer oil production vs. Plastic fat production
- k. Quality attributes of expeller-pressed Mustard oil vs. expeller-pressed Soybean oil

Q3. Diagrammatically explain the following:

2 × 10 = 20

- a. Counter-current multistage *n*-hexane extraction of soybean oil in a 'moving horizontal extractor'
- b. Diagrammatically illustrate and explain the three processes of oil bleaching.

Q4. Describe the following:

4 × 5 = 20

- a. Factors (with the aid of graphs and equations) that govern solvent extraction of oil from oilseeds
- b. Factors to be governed to obtain crystal-free winter oil
- c. Membrane degumming of oils
- d. Processes of lecithin recovery in a soybean oil producing plant

B.E. FOOD TECHNOLOGY AND BIO-CHEMICAL ENGINEERING THIRD YEAR FIRST SEMESTER EXAM 2025

Subject: **FOOD PROCESS TECHNOLOGY - II**

Time-3 hrs

Part-II (50)

FM-100

Answer question no 4 and any two from the following

1. Discuss the advantage and disadvantage of planetary and spiral dough mixture. Write a short note on bread proofer. What are the different types of baking ovens commonly used in baking industries? 6+6+8=20
2. What are the different types of dough can be prepared and how they are different from each other? Discuss the working principle of colour sorter and polisher. 7+7+6=20
3. What are the different test can be carried out to find the idea of the quality of wheat flour? Write a short note on biscuit preparation. 10+10=20
4. Discuss the function of different ingredients commonly used in cake preparation process. 10