

Code :R7422302

1

IV B.Tech II Semester(R07) Regular Examinations, April 2011
FOOD SCIENCE & TECHNOLOGY
(Biotechnology)

Time: 3 hours

Max Marks: 80

Answer any FIVE questions
All questions carry equal marks

1. Explain the fundamentals and aims of food science and technology.
2. Give an account on:
 - (a) Physical and chemical properties of lipids.
 - (b) Water activity and shelf life.
3. Explain about types of microorganisms normally associated with food.
4. Give a brief note on physical, chemical and biological methods of preservations.
5. Give an account on:
 - (a) Enzymes used in food industry
 - (b) Mycoprotein production.
6. Explain about:
 - (a) Natural sweeteners
 - (b) Artificial sweeteners
7. Explain about the equipment involved in commercially important food processing methods.
8. Write a short note on:
 - (a) Importance and functions of quality control.
 - (b) HACCP.

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2

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1. Give an account on:
 - (a) Nutritive value of foods
 - (b) Food as source of energy
2. Write an account on effects of processing on functional properties and nutritive value of foods.
3. Explain about the
 - (a) Biochemical changes caused by microorganisms
 - (b) Food poisoning.
4. Write a note on bioprocessing of meat and dairy products.
5. Explain the nature and type of starters and role of starter in fermented foods.
6. Write a short note on:
 - (a) Food flavours
 - (b) Toxicants
7. Write about the materials and containers used in food packing.
8.
 - (a) What is quality control?
 - (b) How to evaluate the quality of food products?

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3

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1. Explain various biotechnological applications in food industry.
2. Explain how the vitamins and minerals are lost due to processing.
3. (a) What is spoilage of foods?
(b) Explain the food pathogens.
4. Explain irradiated foods and their advantages and disadvantages.
5. Give an account on:
(a) Fermented milk products
(b) Fermented soy and peanut milk.
6. Write a short note on:
(a) Nutraceuticals
(b) Functional foods
7. Give an account on commercially important food processing methods.
8. Write a brief note food regulations, grades and standards.

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4

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1. Explain the fundamentals and aims of food science and technology.
2. Write an account on single cell proteins.
3. Explain about the artificial preservatives used in fish and meat processing.
4. Give an account:
 - (a) Fermentation
 - (b) Cereal based beverages
5. Discuss the role of "food additives" in controlling diseases and deficiencies.
6. Write a short note on:
 - (a) Artificial sweeteners
 - (b) Nutraceuticals
7. Write a brief note on irradiated foods and dairy products.
8. Write a short note on:
 - (a) Concept of codex alimentations
 - (b) USFDA
