

Register No:

B.TECH DEGREE EXAMINATIONS: APRIL/MAY 2011

Sixth Semester

BIOTECHNOLOGY

U07BTE06: Principles of Food Processing

Time: Three Hours

Maximum Marks: 100

Answer ALL questions:-

PART A (10 x 1 = 10 Marks)

1.is an example of polysaccharide.
a) Dextrose b) Fructose c) Ribose d) Cellulose
2. Which one of the following is fat soluble vitamin.
a) Thiamine b) Retinol c) Riboflavin d) Niacin
3. is an example of a Anticaking Agent.
a) Sodium ferrocyanide b) Sodium bicarbonate
c) Potassium cyanide d) Potassium bicarbonate
4.Identify the artificial food colourant from the following
a) Chlorophyll b) Anthocyanins c) Betalains d) Tartrazine
5. Bacteria which proliferate in lipids is known as.....
a) Thermophilic bacteria b) Lipophilic bacteria
c) Mesophilic bacteria d) Siderophilic bacteria
6. Microorganisms which are beneficial to the host organism are known as.....
a) Prebiotic bacteria b) Probiotic bacteria c) Parasitic bacteria d) Campylobacter
7. Flash pasteurization temperature is.....
a) 150°C b) 50°C c) 71°C d) >80°C
8. Microbes that grow within the temperature of 25°C to 40°C are classified as
a) Psychrophiles b) Mesophiles c) Thermophiles d) Thermodurics
9.is an example of a Obligate anaerobe.
a) *Bacillus stearothermophilus* b) *Bacillus coagulans*
c) *Bacillus subtilis* d) *Clostridium thermosaccharolyticum*
10. Quarantine treatment for Insects are done atdosage.
a) 0.03-0.15 kGy b) 0.25-0.75 kGy c) 0.07-1.00 kGy d) 1.50–3.00 kGy

PART B (10 x 2= 20 Marks)

11. Classify lipids.
12. What is the role of dietary fibre in food?
13. Name 2 enzymes used in foods with their functions.
14. Name the most predominant pigment present in potato and onions.
15. Define SCP.
16. Name two functional foods and its importance.
17. What is food intoxication?
18. What are the factors responsible for spoilage of fruit and vegetables?
19. What is TDT?
20. Define eutectic temperature.

PART C (5 x 14 = 70 Marks)

21. a) (i) Define fatty acids? Add a note on saturated and unsaturated fatty acid. (10)
(ii) Explain the role of lipids in foods. (4)

(OR)

- b) What are vitamins? Classify them. Discuss briefly the various fat soluble vitamins along with its sources, nutritional significance and deficiency disorders.

22. a) (i) Explain in detail the principal colouring pigment present in carrots. (7)
(ii) Write short notes on Chlorophyll. (7)

(OR)

- b) Discuss in detail the various flavor compounds present in the foods with their sources.

23. a) Write in detail about the various intrinsic factors, which influence microbial activity.

(OR)

- b) Discuss in detail about the importance of yeasts in foods.

24. a) Describe the microbial spoilage of food materials.

(OR)

b) Elaborate on the term 'Food Intoxication'. How does food intoxication and spoilage affect the quality of the food?

25. a) Describe the commercial heat preservation methods.

(OR)

b) What is freezing? Explain the various changes occurring during freezing of foods using a time- temperature data curve.
