



LOYOLA COLLEGE (AUTONOMOUS), CHENNAI – 600 034

M.Sc. DEGREE EXAMINATION – BIOTECHNOLOGY

THIRD SEMESTER – NOVEMBER 2017

FP 3875 - FOOD PROCESSING TECHNOLOGY

Date: 15-11-2017
Time: 01:00-04:00

Dept. No.

Max. : 100 Marks

PART – A

(20 marks)

Answer all the questions

1. Choose the best answer:

(5 x 1 = 5 marks)

(1) Common food poisoning microbes

a) *Clostridium* and *Salmonella*

b) *Clostridium* and *E. coli*

c) *E. coli* and *Salmonella*

d) *Clostridium* and *Streptococcus*

(2) Food products processed through fluidized bed freezing.

a) Ice Cream

b) Peas

c) Prawns

d) Filleted fish

(3) Rotary Atomizer is present in

a) Solar drier

b) Microwave Oven

c) Tunnel Drier

d) Spray Drier

(4) Enzyme used in meat industry to create cross-linking of restructured meat.

a) Lysozyme

b) Transglutaminase

c) Amylase

d) amylopectin

(5) _____ is the only pulse with widely available high-quality plant-based protein.

a) Kidney beans

b) Red beans

c) Soyabean

d) Peas

II. State whether the following are true or false, if false give reason (5 x 1 = 5 marks)

(6) Ancient methods of food preservation include smoking.

(7) Belt freezers are also called spiral freezers.

(8) Osmotic dehydration helps in removal of water.

(9) Freeze concentration processes consist of a crystallization section where part of the water is converted into solid ice crystals using a refrigeration system.

(10) Lathyrism is due to the excess consumption of faba beans without adequate cereal intake

III. Complete the following:

(5 x 1 = 5 marks)

(11) Living organisms that cause biodeterioration are called _____.

(12) IQF stands for _____.

(13) _____ is the father of canning.

(14) OMD stands for _____

(15) UHT stands for _____

IV. Answer the following, each within 50 words only

(5 x 1 = 5marks)

- (16) Write a note on sauerkraut.
- (17) Name any one gas which is used in modified atmospheric packaging of foods.
- (18) Expand HEPA
- (19) Mention the different sources of food irradiation.
- (20) What is candling?

PART – B

(5×8 = 40 marks)

Answer the following questions, each in about 500 words only.

Draw diagrams wherever necessary.

- (21) a. Write a note on heterolactic fermentation.

OR

- b. Discuss the various factors that influence microbial growth in food.

- (22) a. Give a brief note on freeze concentration.

OR

- b. Explain the process of gas atmospheric storage of foods.

- (23) a. Write a note on retort processing of ready to eat foods.

OR

- b. Write about the sterilization methods in preservation of foods.

- (24) a. Write short notes on hurdle technology.

OR

- b. Bring out the role of enzymes in manufacturing of baked products

- (25) a. Discuss in detail the process involved in milling of wheat.

OR

- b. Describe the various techniques used in preservation of meat.

PART – C

Answer any TWO of the following questions, each in about 1500 words; (2×20 = 40 marks)

Draw diagrams wherever necessary.

- (26) Discuss the various factors that influence microbial growth in food.
- (27) Discuss the importance of canning in modern food industries.
- (28) Discuss the role of Class I and Class II preservatives in food preservation.
- (29) Explain the various processes involved in milk processing operations with an illustration.

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