

Centre for Nutrition and Dietetics
School of Interdisciplinary Sciences and Technology
Jamia Hamdard, New Delhi – 110062
M.Sc. Nutrition and Dietetics (Batch-25-27)
Semester-I Examination, December, 2025
Paper Title: Food Science; Paper Code: MDNCC-102

Roll no.....

MSc. Nutrition
7th Sem,
2025
10.12.25

Duration: 2:30 Hours

Max Marks: 60

Note: write to the point, please make sure you have mentioned question no. before answering

SECTION-A

Q. no- I. Attempt all the questions from the following:

(2 mark each; 2X5=10marks)

1)	Give classification of enzymes.	CO-1, PO-1,2,3
2)	What are the factors affecting microbial growth in food?	(CO-4 PO-2,3)
3)	What are the different methods of freezing?	(CO-2, PO- 3)
4)	Give a few reasons why do we need to concentrate foods.	(CO-1, PO-1,2,3)
5)	Define Anti-caking agents and Emulsifiers.	
6)	What do you understand by the term blanching? What are the functions of blanching?	(CO-4 PO-2,3)

SECTION-B

Q. no-II. Attempt any five of the following questions:

(5marks each; 5X5=25marks)

1)	What are the properties of solution and their applications?	(CO-4 PO-2,3)
2)	Write the Methods and principles of food preservation	(CO-2, PO-2,3)
3)	Comment on the process of gelation in eggs.	(CO-1, PO-1,2,3)
4)	Mention the changes that occur in fruits and vegetables during the following Processes: a) Dehydration and b) Freezing	(CO-1, PO-1,2,3)
5)	Name the enzymes that are used in Cheese production and brewing	(CO-1, PO-1,2,3)
6)	What is gelatinization and dextrinization?. Write a note on Functional Properties of Carbohydrates.	(CO-2, PO-2,3)
7)	What do you understand by Thermal Decomposition of Fats and Oils?	(CO-1, PO-1,2,3)
8)	What are the different types of water? Specify their properties.	(CO-1, PO-1,2,3)

SECTION-C

Q. no- III. Choose any two of the following question:

(12.5 marks each; 12.5X2=25)

1)	Describe the different methods of food processing. Detail any three	(CO-4 PO-2,3)
2)	Elaborate the role of different additives. Mention the safety issues related with additives.	(CO-1, PO-1,2,3)
3)	Describe the relationship between water activity and microbial growth. Provide minimum aw requirements for bacteria, yeasts, and molds and explain why low-aw foods are microbiologically stable. Discuss free water, bound water, and immobilized water with examples.	(CO-1, PO-1,2,3)
4)	Discuss the Enzymes utilization in food industry.	(CO-1, PO-1,2,3)