Enrollment No: ___ Seat No: __

PARUL UNIVERSITY

FACULTY OF APPLIED SCIENCE M.Sc. Winter 2019-20 Examination

Semester: 1 Date: 29/11/2019

Time: 10.30 am To 1.00 pm **Subject Code: 11213101**

Subject Name: Principle of food processing and preservation

Instructions:

- 1. All questions are compulsory.
- 2. Figures to the right indicate full marks.
- 3. Make suitable assumptions wherever necessary.
- 4. Start new question on new page.

Q.1. A) Brief note (4x2) (Each of 04 marks) (08)

(a) Explain in detail fluidized bed freezing.

(b) Write down spoilage due to chemical reaction.

Q.1. B) Answer the following questions (Any two)

(a) Short note (Each of 02 marks)

(04)

- 1. Write down short note on Sterilization.
- 2. What is pasteurization? And write down its purpose.
- (b) Describe in detail hurdle technology.

(c) Write down one product preparation which is Preserved by sugar. (04)

Q.2. A) Answer the following questions.

(a) Short note (Each of 02 marks)

(04)

- 1. Write down Advantages and Disadvantages of freeze dried product.
- 2. Which pathogenic microorganisms cause food poisoning?
- (b) Write down the procedure for drying of fruit & vegetables

(04)

(04)

Q.2. B) Answer the following questions (Any two)

(a) Multiple choice questions.

(Each of 01 marks)

(03)

- 1) As per FPO specificationparts of fruit to eachpart of sugar used for preparation of jam?
 - A) 35,45
- B) 45,55
- C) 55,45
- D) 55,65
- 2) What is the boiling temperature of liquid nitrogen?
 - A) -192°C

B) -195°C

C) -193°C

- D) -196°C
- 3) Maillard reaction occurred due to reaction betweenandin presence of heat.
 - A) Hydrolytic and Amino Acid
- B) Kenotic and Moisture
- C) Oxidative and Kenotick
- D) Amino Acid and Moisture
- (b)Write down classification of food on the basis of pH.
- (03)

Total Marks: 60

(c) What is canning? Explain in detail.

(03)

Q.3. A) Brief note (4x2) (Each of 04 marks)

- (a) Write down Importance and need of food processing and preservation
- (b) What is indirect freezing? Write down any one in detail.

Q.3. B) Answer the following questions (Any two)

(a) Short note (2x2)(Each of 02 marks)

(04)

(08)

- 1) Types of freezing system used for food preservation
- 2) What is Lacquer? Explain Types of Lacquer use in canning. (b) Types of peeling use for canning the fruits and vegetable.

(04)

(c) Short note on Ohmic Heating Technology used for food preservation.

(04)

Q.4. A) Answer the following questions.

(a) Short note (Each of 02 marks)

(04)

1) What is browning? Types of browning reaction?

*	What is blanching? Write down its advantage and disadvantage.	(04)
Q.4. B) A	nswer the following questions (Any two)	
(a	Short note/ Multiple choice questions. (Each of 01 marks)	(03)
	1. Range of frequency used in microwave Technology?	
	2. What is commercial sterility?	
	3is the most dangerous heat resistant spore forming pathogen.	
(b	Short note on Baking, Roasting, Cooking Technology used for food preservation.	(03)
(c	What is HPP? Write down its advantages.	(03)

2) Which two group of micro-organisms that survive pasteurization temperatures used in