

GURU NANAK INSTITUTE OF TECHNOLOGY
An Autonomous Institute under MAKAUT
2020-2021
FOOD PROCESSING TECHNOLOGY-I
(CEREALS,FRUIT,VEGETABLES,BEVERAGES) (Backlog)
FT 501

TIME ALLOTTED: 3 Hours

FULL MARKS: 70

The figures in the margin indicate full marks.

Candidates are required to give their answers in their own words as far as practicable

GROUP – A

(Multiple Choice Type Questions)

Answer any *ten* from the following, choosing the correct alternative of each question: **10×1=10**

		Marks	CO No
1.	(i) Which of the following is a method to delay the onset of spoilage on storage? a) Spray/dip in water/ wax formulations b) Fumigation c) Spray/dip in water/wax formulations/Fumigation d) None of the mentioned	1	CO1
	(ii) Which of the following holds well as a reason for the storage of food at low temperatures? a) Respiration rate decreases b) Growth of microbes decreases c) Humidity is less d) All of the mentioned	1	CO1
	(iii) Which of the following microorganism is popular for spoilage in fruits and vegetables? a) Mesophile b) Thermophile c) Psychrophile d) All of the mentioned	1	CO1
	(iv) Which of the following is needed in order to establish a refrigeration requirement? a) Initial temperature of food b) Specific heat of food c) Amount of food to be placed in a room d) All of the mentioned	1	CO2
	(v) The physical property that influences the deterioration of grain is _____ a) Its flow properties b) Absorption, adsorption and desorption c) Porosity and its tendency towards layering d) All of the mentioned	1	CO2

B. TECH/FT//ODD/SEM-V/FT501/R16/2020-2021

- | | | | |
|--------|---|---|-----|
| (vi) | Which of the following factor affects the moisture content in a grain bulk?
a) Season
b) Climate
c) Distribution of moisture in the grain
d) All of the mentioned | 1 | CO1 |
| (vii) | Liquid pectin is commercially prepared from
a) papaya
b) guava
c) pomegranate
d) none of these | 1 | CO3 |
| (viii) | The only inorganic acid permitted to food is
a) hydrochloric acid
b) sulfuric acid
c) phosphoric acid
d) citric acid | 1 | CO4 |
| (ix) | The volatile toxic component formed during roasting of coffee beans is
a) caffeine,
b) 2-thiofuran,
c) chicory,
d) none of these. | 1 | CO4 |
| (x) | Minerals bound in chlorophyll
a) Ca
b) Mg
c) Fe
d) Mn | 1 | CO4 |
| (xi) | The slope of the climacteric varies with _____
a) Maturity
b) Species
c) Oxygen and carbon-di-oxide content of the storage chamber
d) All of the mentioned | 1 | CO2 |
| (xii) | Maximum FFA Content allowed in potato chips is
a) 2.5%
b) 2.8%
c) 1.8%
d) 1.5% | 1 | CO2 |

GROUP – B*

(Short Answer Type Questions)

Answer any *three* from the following: **3×5=15**

- | | | Marks | CO No |
|----|---|--------------|--------------|
| 2. | What are the in-storage drying methods? Briefly discuss the methods | 5 | CO1 |
| 3. | Briefly Discuss the Continuous flow drying methods for cereals | 5 | CO1 |

B. TECH/FT//ODD/SEM-V/FT501/R16/2020-2021

4.	(a)	Write some sources of infestation in grains	2	CO2
	(b)	What are the basic steps for insect control	3	CO2
5.	(a)	Which type of organisms mainly attack the jams and jellies and why?	2	CO3
	(b)	Discuss about weeping of jelly	3	CO3
6.	(a)	Write short note on anticaking agent	3	CO4
	(b)	Sweetener	2	CO4

GROUP – C***(Long Answer Type Questions)**Answer any *three* from the following: **3×15=45**

			Marks	CO No.
7.	(a)	Discuss principles of storage of grains	4	CO1
	(b)	Briefly discuss the traditional storage systems	6	CO1
	(c)	spotlight on the storage structures in India	5	CO1
8.	(a)	What is modified starch and What are the modification methods?	6	CO2
	(b)	Draw and discuss the production methodology of potato chips	5	CO2
	(c)	Write the advantages and disadvantages of conditioning (Drying)	4	CO2
9.	(a)	FDA stands for ?	1	CO4
	(b)	What is coloring agent? Name two artificial coloring agents.	2	CO4
	(c)	Artificial sweetener is safe or not –Explain?	3	CO4
	(d)	Example three artificial sweetener.	3	CO4
	(e)	Example few name of antioxidants and explain their mode of action.	6	CO4
10.	(a)	Short note Chlorophyll	5	CO4
	(b)	Carotenoid	5	CO4
	(c)	Tannin and xanthophyll	5	CO4
11.	(a)	What is preservation?	2	CO3
	(b)	Antioxidant is store in freeze drier-Explain?	5	CO3
	(c)	Chilling defect of freeze dryer-explain.	2	CO3
	(d)	What is thickening agent?	2	CO4
	(e)	Examples of two thickening agent.	2	CO4
	(f)	What are the major functions of thickening agent?	2	C04