

Name:	 UPES UNIVERSITY WITH A PURPOSE
Enrolment No:	

UNIVERSITY OF PETROLEUM AND ENERGY STUDIES
End Semester Examination, May 2021

Course: Food Chemistry
Program: B.Tech Food Technology
Course Code: HSCC-1018

Semester: II
Time : 03 hrs.
Max. Marks: 100

Instructions: All Questions are compulsory

SECTION A

S. No.	MCQs or Fill in the blanks (1.5 marks each)	30 Marks	CO
1	Write down the chemical formula of liquid that is necessary for life on earth		CO1
2	Why freezing, dehydration or concentration of foods increase shelf life?		CO1
3	What is the center of water quadrupole?		CO4
4	Difference between water holding capacity and water binding properties?		CO1
5	Define "Clathrate".		CO5
6	Write down the RDA of water for infants having age 6-12 months.		CO1
7	If a person consume 220 g carbohydrates, how much metabolic water is produced.		CO4
8	Margarine is an example ofemulsion.		CO1
9	Define Qstwald ripening		CO4
10	What type of agents reduce syneresis?		CO1
11	Write down the steps of foam formation		CO1
12	Shortest ketose carbohydrate has how much oxygen atoms		CO5
13	By isomerization D-mannose is converted into and		CO5
14	Differentiate between maltose and lactose.		CO1
15	What is the difference between molecular weight of myoglobin and hemoglobin?		CO5
16	Functional role of snake venoms protein.		CO5
17	Name the alcohol generally present in waxes		CO1
18	Draw the structure of 1,3 Diacylglycerol		CO5
19	Why there is difference in melting point of lauric acid and stearic acid		CO1
20	Ascorbic acid is derivative of		CO5

SECTION B 20 marks 4 questions 5 marks each

Q	Short Answer Type Question (5 marks each) Scan and Upload 4 questions 5 marks each	20 Marks	CO

1	Jam and jelly are example of which type of food. What are the characteristics of such food?	5	CO3
2	Justify the consumption of carbohydrates.	5	CO4
3	Structural difference between epimers and enantiomers?	5	CO1
4	Differentiate between plant storage carbohydrates and animal carbohydrates. Explain structural difference between them	5	CO2
SECTION C 30 marks			
Q	Two case studies 15 marks each subsections	30 Marks	CO
1	a) Explain the nutritional importance of amino acids. Describe the physical properties of amino acids. (5 marks) b) Explain about long chain polymers of monosaccharide. Types of these polymers with example (10 marks)	15	CO3
2	a) What is the basic composition of food materials? How they are classify. Write about materials present in higher percentage in foods. (8 marks) b) Describe the role of vitamin H on health. Draw its structure and deficiency disease due to vitamin H. (7 marks)	15	CO2
SECTION- D 20 marks			
Q	Long Answer type Questions Scan and Upload (10 marks each)	20 Marks	CO
1	Explain the sequential changes arises in lipids during processing.	10	CO5
2	a) Differentiate between gelatinization and retrogradation. (5 marks) b) Effect of color and flavor on sensory properties of food? (5 marks)	10	CO4

All Questions should be mapped with equal distribution of Cos ×÷