

Name:

Enrolment No:



UPES

End Semester Examination, December 2023

Course: Fundamentals of Food Science

Program: B.Sc. (FND)

Course Code: HSND1002

Instructions: Read each question carefully and answer

Semester: I

Duration: 3 Hours

Max. Marks: 100

Section A			
S. No.	MCQs (20Qx1.5M= 30 Marks)	Marks	COs
Q1	Which of the following does NOT constitute 90% of dry weight of any food? a) Carbohydrates b) Fibers c) Proteins d) Fats	1.5	CO1
Q2	Which sentence is untrue with respect to the human body? a) Unconsumed water broken → fats b) Carbohydrates broken → Sugars c) Proteins broken down → Amino acids d) Fats broken down → Fatty acids and glycerol	1.5	CO1
Q3	Which provides energy very slowly? a) Carbohydrates b) Fats c) Proteins d) Fibers	1.5	CO1
Q4	The food industry is a high-volume industry. Hence, any losses may be a major loss to the producer. a) True b) False	1.5	CO1
Q5	Increasing agricultural efficiency is the most important way to make sure food production meets the necessities. a) True b) False	1.5	CO1
Q6	Which of the following is not a function of Carbohydrates? a) Storage of energy b) Fuel for metabolism c) Structural components	1.5	CO2

	d) None of the mentioned		
Q7	Sham is overweight. Which of the following carbohydrates is he consuming maximum? a) Refined b) Unrefined c) Glycogen d) None of the mentioned	1.5	CO2
Q8	Which of the following is NOT a step in Modern Milling of Wheat? a) Stone Grinding b) Wheat Conditioning c) Wheat milling d) Cleaning	1.5	CO2
Q9	Which of the following is NOT a part of a Wheat kernel? a) Bran b) Endosperm c) Germ d) None of the mentioned	1.5	CO2
Q10	Which of the following parts of a plant are spices NOT made from? a) Bark b) Leaf c) Root d) Cell	1.5	CO2
Q11	_____ is the World's largest producer of egg.	1.5	CO3
Q12	Name any two types of egg commonly consumed in India.	1.5	CO3
Q13	How much percentage is held by the shell in egg? a) 5% b) 10% c) 20% d) 15%	1.5	
Q14	Albumen accounts for ____% of total egg weight.	1.5	CO3
Q15	Shell of the egg is covered by a cuticle membrane, which is also known as_____.	1.5	CO3
Q16	The egg is kept in position at the centre of the egg with the help of the_____.	1.5	CO3
Q17	Name the test conducted to check the quality of eggs.	1.5	CO3
Q18	Which category of vegetables mushrooms belong to?	1.5	CO4
Q19	Name any two pigments which belong to water soluble category.	1.5	CO4
Q20	Betalains are not water-soluble pigments. a) True b) False	1.5	CO4

Section B (4Q x 5M=20 Marks)			
Q 1	Mention the role of carbohydrates in the human body. Describe five terms related to carbohydrate deficiency in the human body.	5	CO4
Q 2	Differentiate between saturated and unsaturated fatty acids. Explain their types in detail.	5	CO2
Q 3	Describe the different stages of sugar cookery with its appearance and uses.	5	CO1
Q 4	Describe the effects of cooking on nutritional properties of food.	5	CO5
Section C (2Qx15M=30 Marks)			
Q 1	<p>Mina is a diabetic patient. One day she is tempted to eat junk food. Which is a relatively better food product to eat – pasta or candy? Why? (3 marks)</p> <p>a) Pasta- contains primary carbohydrates which increase blood sugar level comparatively slowly and to a lesser level</p> <p>b) Pasta- contains secondary carbohydrates which increase blood sugar level comparatively slowly and to a lesser level</p> <p>c) Candy – contains primary carbohydrates which increase blood sugar level comparatively slowly and to a lesser level</p> <p>d) Candy- contains secondary carbohydrates which increase blood sugar level comparatively slowly and to a lesser level</p> <p>i) Explain the biological significance of fats. (6 marks)</p> <p>ii) Classify fats with examples. (6 marks)</p>	15	CO3
Q 2	<p>Attempt any three options: -</p> <p>a) Enzymatic browning (5 marks)</p> <p>b) Non- Enzymatic browning (5marks)</p> <p>c) Draw the well-labeled diagram of egg (5 marks)</p> <p>d) Explain the postmortem changes in the carcass of the meat (5 marks)</p>	15	CO3
Section D (2Qx10M=20 Marks)			
Q 1	Describe the physical and chemical properties of fats and oils. Differentiate between fats and oils. (5+5 marks)	10	CO5
Q 2	Classify vegetables based on nutritional classification (5 marks). Differentiate between water soluble and water insoluble pigments with the help of suitable examples (5 marks).	10	CO4