Name: **Enrolment No:**	UPES UNIVERSITY WITH A PURPOSE

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

Course: Principles of Nutrition
Program: B.Sc. Foods and Nutrition
Course Code: HSCC2015

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

Instructions: Read questions carefully.

SECTION A

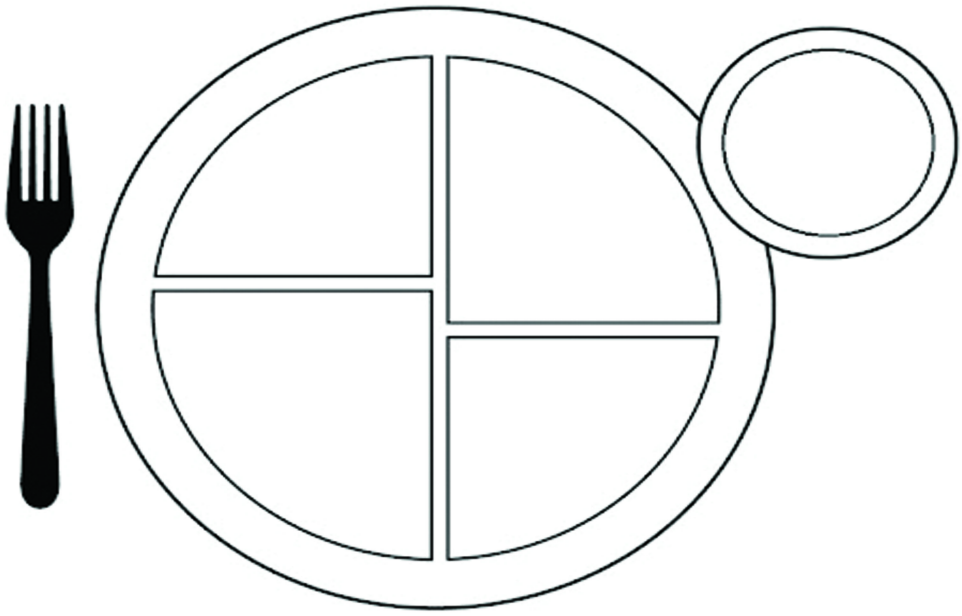
S.no.	MCQ's /Fill in the blanks/ T&F (1.5 marks each)	**30 Marks**	**CO**
1	Identify the sequence from the following foods that are rich in omega 3 fatty acids? (a) Lard (b) Butter (c) Fatty fish (d) Olive oil (e) Mustard seeds (f) Walnut Codes: (A) (a), (b), (c) (B) (c), (e), (f) (C) (e), (f), (b) (D) (f), (c), (d)	**1.5**	**CO1**
2	_____name of the disease due to deficiency of Vitamin B3?	**1.5**	**CO2**

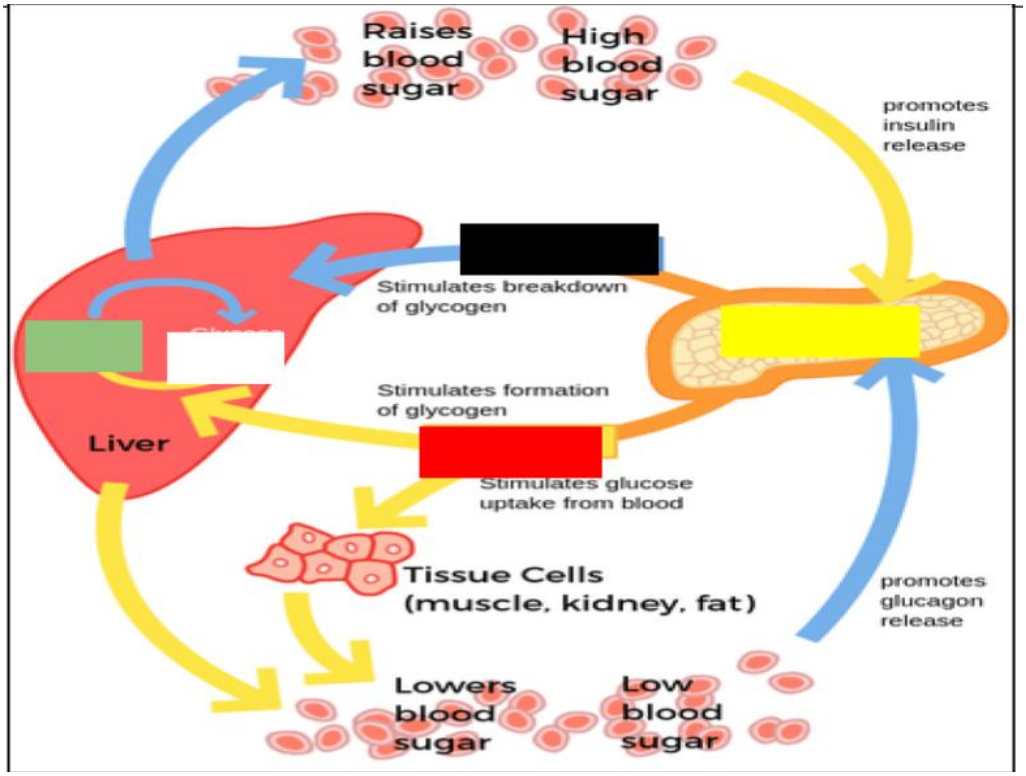
3	Match the foods in List – I with its rich nutrients in List – II: List – I List – II Food Nutrients (a) Papaya (i) Iron (b) Orange (ii) Calcium (c) Dates (iii) Vitamin C (d) Ragi (iv) Vitamin A Codes: (A) (i) (ii) (iii) (iv) (B) (ii) (iii) (iv) (i) (C) (iv) (iii) (i) (ii) (D) (iii) (ii) (iv) (i)	**1.5**	**CO1**
4	From which plant source gluten is derived? (A) Soya (B) Rice (C) Corn (D) Wheat	**1.5**	**CO2**
5	_____gm protein is required for an adult (ideal body weight) according to RDA-2020.	**1.5**	**CO1**
6	Assertion (A): Consumption of plenty of fruits and vegetables protects individuals from certain cancers. Reason (R): The antioxidants present in fruits and vegetables help in removal of free radicals. Codes:	**1.5**	**CO2**

	(A) Both (A) and (R) are false. (B) Both (A) & (R) are true. (C) (A) is true, (R) is false. (D) (A) is false (R) is true.		
7	Which of the following is not a deficiency disease? (a) Xerophthalmia (b) Anorexia Nervosa (c) Osteomalacia (d) Keratomalacia	**1.5**	**CO4**
8	Arrange the right sequence in decreasing order of protein content in food. i. Bread ii. Cheese iii. Butter iv. Boiled egg Codes: (A) i, ii, iii, iv (B) ii, iii, iv, i (C) iii, i, ii, iv (D) iv, ii, i, iii	**1.5**	**CO3**
9	Following nutrients play role in synthesis of haemoglobin: (A) Vitamin C (B) Vitamin K (C) Zinc	**1.5**	**CO4**

	(D) Vitamin A		
10	Among which of the following is fortified with Vitamin D Foods (i) Hydrogenated fat (ii) Milk (iii) Biscuits (iv) Salt	**1.5**	**CO2**
11	Write end product of following: (i) Glucose + Glucose = _____ (ii) Glucose + Galactose = _____ (iii) Glucose + Fructose = _____	**1.5**	**CO3**
12	_____ acts as a carrier in active transport of amino acids across cell membranes.	**1.5**	**CO4**
13	A type of secondary structure in which a section of polypeptide chains coils into a spiral, most commonly a right handed spiral is known as _____	**1.5**	**CO2**
14	State true or False ? (A) Insulin is a hormone (B) All hormones are made up of proteins. (C) Lactase is an enzyme.	**1.5**	**CO3**
15	Write 2 food sources of: (i) Soluble fiber : (ii) Insoluble fiber :	**1.5**	**CO1**

16	Deficiency of_____ can cause neural tube defects in infants.	**1.5**	**CO4**
17	Vitamin B-12 is also known as _____	**1.5**	**CO4**
18	Write example of: (i) Digestible Polysaccharide : (ii) Indigestible Polysaccharide :	**1.5**	**CO2**
19	Hydrolysis of triglycerides by alkali is also known as _____	**1.5**	**CO1**
20	People who follow a Vegan diet found to be deficit in _____	**1.5**	**CO4**
SECTION B (5 marks each question)			
Q	Short Answer Type Question (5 marks each) Scan and Upload 4 questions 5 marks. Word limit (100-120)	**20 Marks**	**CO**
1	Write roles of a dietician? Explain RDA.	**5**	**CO1**
2	Explain basal metabolic rate and factors affecting thermic effect of food?	**5**	**CO2**
3	Write classification of fatty acid with example. Explain functions of Lipids?	**5**	**CO2**
4	Describe absorption of protein? Or Write deficiency disease of the following micronutrients: (i) Vitamin B-12 (ii) Fluorine (iii) Niacin (iv) Folate (v) Vitamin A	**5**	**CO4**

SECTION C 30 marks			
Q	**Two case studies 15 marks each subsections** (Scan and Upload) word limit: (200-300)	**30 Marks**	**CO**
1	 (i) Describe a healthy plate? (ii) Write the food group distribution in above illustration of healthy plate (iii) Illustrate one healthy plate with meal preparation.	**15 (5+5+ 5)**	**CO1**

2	 (i) Name the colored boxes from the above image of maintenance of blood sugar Black- Green- Yellow- Red- White- (ii) Write name of one low glycemic index (GI) meal preparation for breakfast, midmorning snack, lunch, evening snack and dinner. (iii) Write normal range of blood sugar levels, fasting, postprandial and glycated hemoglobin?	**15 (5+5+ +3)**	**CO2**

	SECTION- D 20 marks		
Q	Long Answer type Questions Scan and Upload (10 marks each) Word limit 200-250	**20 Marks**	**CO**
1	**Q1: (a)** Explain carbohydrate metabolism and absorption And Illustrate with the digestive tract. **(b)** Describe Dietary fiber and classification.	**10 (3+4+3)**	**CO3**

2	**Q2: (a)** Write enzymes responsible for protein digestion and their sites? **(b)** Explain Biological value? **(c)** Explain the functioning of Bomb calorimeter, along with energy value derived from it for nutrients.	**10 (3+3+4)**	**CO1**