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

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

Course: Principles of Dietetics — **Semester:** I
Program: M.Sc. Nutrition and Dietetics — **Time: 03 hrs.**
Course Code: HSND7014 — **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	Which of the following foods do not contain gluten and is acceptable for patients with celiac disease to consume? (a) Wheat flour (b) Rice flour (c) Gram flour (d) Corn flour (A) (b), (c), (d) are correct (B) (a), (b), (c) are correct (C) (c), (d), (a) are correct (D) (d), (a), (b) are correct	**1.5**	**CO5**
2	Normal BMI for adult Asians as suggested by WHO is (A) 18.5 – 22.9 kg/m^2 (B) 19.5 – 24.9 kg/m^2 (C) 20.5 – 25.9 kg/m^2 (D) 21.5 – 26.9 kg/m^2	**1.5**	**CO2**

3	Match the disease in List – I to symptoms in List – II List – I (Disease) / List – II (Symptoms) a. Cardiovascular disease — i. increased LDL b. Dyslipidemia — ii. Parasthesia c. Diabetes — iii. Hypertension d. Vitamin D deficiency — iv. Polydypsia v. Fat mal-absorption Codes: (A) ii v i iii (B) v iii ii v (C) iv v ii i (D) iii i iv v	**1.5**	**CO4**
4	From which plant source gluten is derived? (A) Soya (B) Rice (C) Corn (D) Wheat	**1.5**	**CO5**
5	_____is the diagnostic range of glycated hemoglobin for diabetics.	**1.5**	**CO4**
6	16. The symptom in kidney failure patients are (a) GFR 150 ml/min (b) GFR 20 ml or less/min (c) Polydipsia (d) Polyuria	**1.5**	**CO3**

7	Assertion (A): Atherosclerosis is the pathological process that underlines the majority of vascular diseases. Reason (R): The formation of plaques due to the collection of lipids narrows the lumen of blood vessels. Codes: (A) Both (A) & (R) are true. (B) Both (A) & (R) are false. (C) (A) is true (R) is partially true. (D) Both (A) and (R) are partially true.	**1.5**	**CO4**
8	Match the glands with their respective hormones: (a) alpha cells- pancreas i. Rennin (b) Kidney ii. Insulin (c) beta cells- pancreas iii. Ghrelin (d) Gastrointestinal tract iv. Glucagon Code: (A) iv i ii iii (B) i ii iii iv (C) iv iii i ii (D) ii i iii iv	**1.5**	**CO4**
9	Tube feeding is also known as (A) Parenteral nutrition (B) Enteral nutrition (C) Total parenteral nutrition (D) Supplemental nutrition	**1.5**	**CO1**

10	Arrange in the correct sequence, the symptoms of diabetes as they appear with advancement of disease: (a) Dehydration (b) Glycosuria (c) Polyurea (d) Ketosis (e) Hyperglycemia (f) Diabetic coma Codes: (A) (e), (c), (b), (d), (a), (f) (B) (e), (b), (c), (a), (d), (f) (C) (b), (a), (c), (e), (f), (d) (D) (c), (b), (a), (d), (e), (f)	**1.5**	**CO4**
11	Match the Nutritional Assessment Methods in List – I with Tools used for measurement in List – II: List – I — List – II Nutritional Assessment Methods — Tools (a) Dietary Survey — (i) Hemoglobin (Hb) (b) Anthropometry — (ii) Food frequency questionnaire (c) Biochemical — (iii) Mid upper arm circumference MUAC (d) Clinical — (iv) Bomb Calorimeter (v) Glycated hemoglobin Codes: (A) (iii) (vi) (iv) (i) (B) (iv) (iii) (i) (vi) (C) (vi) (iv) (v) (ii) (D) (iii) (v) (i) (ii)	**1.5**	**CO3**

12	Which of the following are rich sources of cholesterol? I. Egg II. Ice Cream III. Soya oil IV. Cereals V. Pulses VI. Barfi Codes: (A) IV, V, II (B) III, II, I (C) II, III, VI (D) I, II, VI	**1.5**	**CO3**
13	Assertion (A): Gastric ulcers are localized erosions of the mucosal lining of the alimentary tract that comes in contact with the pancreatic juices. Reason (R): Highly nervous, emotional, ambitious and aggressive individuals are more prone to ulcers. Codes: (A) (A) is true and (R) is false. (B) (A) is wrong and (R) is true. (C) Both (A) and (R) are false. (D) Both (A) and (R) are true.	**1.5**	**CO4**
14	The location for transnasal tube feedings is Jejunum (A) True (B) False	**1.5**	**CO1**

15	How do enteral and parenteral nutrition differ? (a) Enteral is administered via the GI tract; parenteral via a site outside the GI tract. (b) Enteral is administered via a blood vessel; parenteral via the mouth. (c) Parenteral is administered via GI tract; enteral via a site outside the GI tract. (d) Enteral is administered via the stomach; parenteral via the small intestine	**1.5**	**CO1**
16	Give the sequential order of the stage of development of Atherosclerotic lesions: I. Fatty streaks II. Formation of connective tissue cells with fat and cholesterol. III. Thickening of intimal layers IV. Plaque formation V. Atheroma formation VI. Ulceration VII. Thrombosis Codes: (A) III, IV, II, V, I, VI, VII (B) II, I, IV, III, VII, VI, V (C) I, II, III, VII, IV, V, VI (D) II, III, I, IV, V, VI, VII	**1.5**	**CO4**
17	Match the hormones in List – I with diseases in List – II: List – I (Hormones) — List – II (Diseases) a. Insulin — i. Goitre b. TSH — ii. Hypertension	**1.5**	**CO4**

	c. Renin Angiotensin iii. Cushing Syndrome d. Cortisol iv. Diabetes v. Gout Codes: (A) i ii iii iv (B) iii iv i v (C) iv i ii iii (D) v iv ii iii		
18	Match the following biochemical tests in List – I to the diseases in List – II: List – I (Biochemical Test) / List – II (Disease) a. Creatinine — i. Liver b. Bilirubin — ii. Heart c. T_3T_4 — iii. Kidney d. LDL — iv. Thyroid v. Pancreas Codes: (A) ii iii iv v (B) iii i iv ii (C) iv v ii i (D) ii iii v iv	**1.5**	**CO3**

19	Match the oils given in List – I with the saturation level of fatty acids in List – II. List – I (Oils) — List – II (Saturation of fatty acids) (a) Mustard oil — (i) TFAs (b) Vanaspati — (ii) Omega 6 PUFA (c) Rice bran oil — (iii) Omega 3 PUFA (d) Safflower oil — (iv) MUFA Code: (A) (ii) (iv) (iii) (i) (B) (iv) (iii) (ii) (i) (C) (i) (ii) (iii) (iv) (D) (iv) (i) (iii) (ii)	**1.5**	**CO2**
20	Give the sequential involvement of enzymes for the digestion of food in the GI Tract. (a) Iso-maltase (b) Pepsin (c) Ptyalin (d) Amylase Code: (A) (a) (b) (d) (c) (B) (c) (b) (d) (a) (C) (d) (a) (b) (c) (D) (b) (a) (c) (d)	**1.5**	**CO1**
SECTION B (5 marks each question)			
Q	**Short Answer Type Question** (5 marks each)	**20**	**CO**

	Scan and Upload 4 questions 5 marks. Word limit (100-150)	**Marks**	
1	Classify android and gynoid obesity?	**5**	**CO4**
2	Write dietary guidelines for irritable bowel syndrome?.	**5**	**CO3**
3	Briefly describe etiology and symptoms of diabetes?	**5**	**CO5**
4	Write basic principles and techniques for preparation of normal and hospital diet? Or Illustrate the role of hormones affecting hunger and satiety?	**5**	**CO1**
	SECTION C 30 marks		
Q	**Two case studies 15 marks each subsections** Scan and upload.(Word limit-200-250)	**30 Marks**	**CO**
1	Case Study 1 A 50 year old house wife presented with the following blood parameters: **Total Cholesterol** - 255 mg/dL **S. Triglycerides** - 280 mg/dL **LDL Cholesterol** - 190 mg/dL **VLDL Cholesterol** - 30 mg/dL **HDL Cholesterol** - 45 mg/dL **Fasting blood sugar** - 90 mg/dL **Weight** - 60 kg **Height** - 150 cm Not on medication yet. **Q1:** List five important interventions that could delay drug therapy in this case. **Q2:** What are the target values? **Q3:** Give the nutrient composition of the diet you would recommend?	**15 (7+4+ 4)**	**CO5**

2	Case Study 2 A 51 yr old male diagnosed recently with diabetes, with the following parameters- **LDL** - 155 mg/dl, **HDL** - 40 mg/dl, **Total cholesterol** - 234 mg/dl, **Triglycerides** - 265 mg/dl. **Q1.** Which additional dietary change from the following would you recommend be included in his treatment plan in order to lower his lipid levels? And why? (A) Add a fish oil supplement (B) Restrict dietary cholesterol to <200 mg/day. (C) Restrict dietary fat to <35% of total calories. (D) Restrict dietary saturated fat to <10% of total calories. **Q2.** Write dietary guidelines indicating the lifestyle modifications to be taken?	**15 (7+8)**	**CO3**

	SECTION- D 20 marks		
Q	**Long Answer type Questions** Scan and Upload (10 marks each) Word limit 250-300	**20 Marks**	**CO**
1	**a)** Write assessment and screening of obesity? **b)** Write dietary guidelines for obesity management?	**10 (5+5)**	**CO2**
2	**a)** Explain complexities of chronic kidney disease? **b)** Describe kidney dialysis process?	**10 (5+5)**	**CO4**