

PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)

MSc DEGREE EXAMINATION DECEMBER 2025
(Third Semester)

Branch- **CLINICAL NUTRITION AND DIETETICS**

NUTRACEUTICALS AND DRUG – NUTRIENT INTERACTION

Time: Three Hours

Maximum: 75 Marks

SECTION-A (10 Marks)

Answer ALL questions

ALL questions carry EQUAL marks

$(10 \times 1 = 10)$

Module No.	Question No.	Question	K Level	CO
1	1	Which of these is a plant-based nutraceuticals? a) Flaxseeds b) Eggs c) Fish oil d) Meat	K1	CO1
	2	Infer about the term "bioavailability". a) Shelf life of food b) Taste of food c) Absorption of nutrients d) Color of food	K2	CO1
2	3	What is the primary benefit of consuming probiotics? a) Improved digestion b) Improved vision c) Weight gain d) Muscle strength	K1	CO2
	4	Show the most commonly consumed probiotic. a) Flour b) Butter c) Oil d) Yogurt	K2	CO2
3	5	Which nutrient can interfere with the absorption of iron supplements? a) Calcium b) Protein c) Vitamin D d) Zinc	K1	CO3
	6	Outline the phase involves the movement of a drug throughout the body. a) Elimination b) Absorption c) Metabolism d) Distribution	K2	CO3
4	7	Which mineral is commonly depleted by antiepileptic drugs? a) Zinc b) Calcium c) Sodium d) Potassium	K1	CO4
	8	Infer which of the following absorption is affected by sedatives. a) Fats b) Proteins c) Vitamins d) Fiber	K2	CO4
5	9	Which drug interaction may occur with enteral nutrition? a) Delayed absorption b) Increased excretion c) Faster metabolism d) Improved bioavailability	K1	CO5
	10	Show the nutrient that is commonly fortified in commercial enteral formulas? a) Protein b) Carbohydrates c) Fiber d) Fat	K2	CO5

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SECTION - B (35 Marks)

Answer ALL questions

ALL questions carry EQUAL Marks**(5 × 7 = 35)**

Module No.	Question No.	Question	K Level	CO
1	11.a.	Classify nutraceuticals based on types. (OR)	K4	CO1
	11.b.	Identify the animal-based and plant-based sources of nutraceuticals.		
2	12.a.	Discriminate between nutraceuticals and functional foods. (OR)	K5	CO1
	12.b.	Interpret about the probiotics in fermented non-milk products.		
3	13.a.	Summarize the potential interactions between dietary supplements and drugs. (OR)	K5	CO2
	13.b.	Predict what is pharmacodynamics and its mechanism of action.		
4	14.a.	Explain the nutritional impact of oral diabetic drugs and insulin therapy. (OR)	K5	CO4
	14.b.	Assess the impact of painkillers and sedatives on nutritional status in CNS disorders.		
5	15.a.	Explain drug-nutrient interactions in transplantation patients and how they can affect post-transplant care. (OR)	K6	CO5
	15.b.	Outline the consequences of drug-nutrient interactions in parenteral nutrition (PN) formulas.		

SECTION - C (30 Marks)

Answer ANY THREE questions

ALL questions carry EQUAL Marks**(3 × 10 = 30)**

Module No.	Question No.	Question	K Level	CO
1	16	Outline the concept of bioavailability and metabolism of nutraceuticals.	K4	CO1
2	17	Explain the taxonomy and important features of probiotic micro- organisms.	K5	CO1
3	18	Determine how drugs work in the human body.	K5	CO4
4	19	Point out cardiac drugs and explain their impact on the nutritional status.	K4	CO3
5	20	Plan a pre and post renal transplantation cancer patient diet menu.	K6	CO5