

PSG COLLEGE OF ARTS & SCIENCE  
(AUTONOMOUS)

MSc DEGREE EXAMINATION DECEMBER 2024  
(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 × 1 = 10)

| Module No. | Question No. | Question                                                                                                                           | K Level | CO  |
|------------|--------------|------------------------------------------------------------------------------------------------------------------------------------|---------|-----|
| 1          | 1            | Which of the following is a type of nutraceutical?<br>a) Fiber b) Vitamin c) Water d) Sugar                                        | K1      | CO1 |
|            | 2            | Translate “ceutical” in the word nutraceutical.<br>a) healing b) therapeutic c) both d) none                                       | K2      | CO1 |
| 2          | 3            | What does probiotics balance?<br>a) Cholesterol levels b) Blood sugar<br>c) Blood pressure d) Gut bacteria                         | K1      | CO1 |
|            | 4            | Relate which probiotics can help prevent?<br>a) Diarrhea b) Cough c) Fever d) Allergies                                            | K2      | CO1 |
| 3          | 5            | Which vitamin interferes with the anticoagulants?<br>a) D b) C c) K d) A                                                           | K1      | CO4 |
|            | 6            | Show the route of administration provides the fastest drug absorption.<br>a) Intravenous b) Oral c) Rectal d) Topical              | K2      | CO2 |
| 4          | 7            | Which nutrient in the body is primarily affected by Beta blockers?<br>a) Protein b) Iron c) Potassium d) Calcium                   | K1      | CO3 |
|            | 8            | Show among the following diuretics primarily affect the balance of which nutrient?<br>a) Electrolytes b) Proteins c) Carbs d) Fats | K2      | CO3 |
| 5          | 9            | Which nutrient is often deficient in patients on long-term parenteral nutrition?<br>a) Zinc b) Sodium c) Protein d) Fiber          | K1      | CO5 |
|            | 10           | Infer which vitamin deficiency is caused by chemotherapy drugs?<br>a) Vitamin A b) Vitamin D<br>c) Vitamin C d) Folate             | K2      | CO5 |

**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.        | Develop how nutraceuticals effects physiologically and on human health? | K3      | CO1 |
|            |              | (OR)                                                                    |         |     |
|            | 11.b.        | Organize the approval process for nutraceutical in India.               |         |     |

Cont...

|   |       |                                                                                  |    |     |
|---|-------|----------------------------------------------------------------------------------|----|-----|
| 2 | 12.a. | Classify functional foods based on their origin.                                 | K4 | CO1 |
|   | (OR)  |                                                                                  |    |     |
|   | 12.b. | Examine the health effects of prebiotics and probiotics.                         |    |     |
| 3 | 13.a. | Identify the mechanism of drug nutrient interactions.                            | K3 | CO2 |
|   | (OR)  |                                                                                  |    |     |
|   | 13.b. | Build details on the route of administration of drugs.                           |    |     |
| 4 | 14.a. | Simplify the effects of antiepileptic drugs on nutritional status.               | K4 | CO3 |
|   | (OR)  |                                                                                  |    |     |
|   | 14.b. | Inspect how corticosteroids affect nutritional status?                           |    |     |
| 5 | 15.a. | Explain the role of drug-nutrient interactions in patients on enteral nutrition. | K5 | CO5 |
|   | (OR)  |                                                                                  |    |     |
|   | 15.b. | Determine the impact of drug-nutrient interactions in cancer patients.           |    |     |

**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           | Examine the chemistry and scope of nutraceuticals.                                                      | K4      | CO1 |
| 2          | 17           | Analyze the role of functional components in nutrient deficiency and disorders.                         | K4      | CO1 |
| 3          | 18           | Estimate the interaction between macronutrients and micronutrients and their impact on drug absorption. | K5      | CO4 |
| 4          | 19           | Analyze the effects of drugs prescribed by a Neurologist on nutritional status.                         | K4      | CO3 |
| 5          | 20           | Elaborate the role of drug-nutrient interactions in immune function.                                    | K6      | CO5 |

Z-Z-Z

END