

PSG COLLEGE OF ARTS & SCIENCE  
(AUTONOMOUS)

MSc DEGREE EXAMINATION MAY 2025  
(Second Semester)

Branch – FOODS AND NUTRITION

NUTRITION RESEARCH METHODS

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            | Name the Instrument used for measuring energy metabolism in animal.<br>a) Respiration calorimeter      b) Bomb calorimeter<br>c) Psychometric chamber      d) None   | K1      | CO1 |
|            | 2            | Extend CTRI.<br>a) Clinical Trials Registry India<br>b) Combined Trials Registry India<br>c) Clinical Trials Register Institute<br>d) Combined Trials Register Institute   | K2      | CO1 |
| 2          | 3            | Which of the following is not a fat soluble vitamin?<br>a) Vitamin A      b) Vitamin B<br>c) Vitamin D      d) Vitamin E   | K1      | CO2 |
|            | 4            | Show what component is labeled with radioactive isotope for deduction?<br>a) Antibodies      b) Enzymes<br>c) Antigen      d) Substrates   | K2      | CO2 |
| 3          | 5            | Which among the following is the benefit of using simple random sampling?<br>a) The results are always representative.<br>b) Interviewers can choose respondents freely.<br>c) Informants can refuse to participate.<br>d) We can calculate the accuracy of the results. | K1      | CO3 |
|            | 6            | Outline among these, which sampling is based on equal probability?<br>a) Simple random sampling      b) Stratified random sampling<br>c) Systematic sampling      d) Probability sampling  | K2      | CO3 |
| 4          | 7            | What is the primary method of dietary assessment used in epidemiological studies?<br>a) Weighed diary      b) Unweighed diary<br>c) 24-hour recall      d) Diet history  | K1      | CO4 |
|            | 8            | Show which of the following is the appropriate indicator of calcium status?<br>a) ionized serum calcium      b) total serum calcium<br>c) urinary calcium      d) none of the above  | K2      | CO4 |
| 5          | 9            | Which among the following is major percentage in body?<br>a) water      b) Protein<br>c) Fat      d) Carbohydrate  | K1      | CO5 |
|            | 10           | Show which of the following can affect body composition?<br>a) Diet      b) Physical activity<br>c) Age factor      d) All the above   | K2      | CO5 |

Cont...

**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.        | Distinguish between In vitro and In vivo Nutritional studies.                           | K4      | CO1 |
|            |              | (OR)  |         |     |
|            | 11.b.        | Categorize the methods of nutritional studies.  |         |     |
| 2          | 12.a.        | Outline principle of bioavailability of water soluble vitamins.                         | K2      | CO2 |
|            |              | (OR)  |         |     |
|            | 12.b.        | Explain the uses of stable isotopes in nutrition studies.                               |         |     |
| 3          | 13.a.        | Identify the factors to be considered while storing food samples for nutrition studies. | K3      | CO3 |
|            |              | (OR)  |         |     |
|            | 13.b.        | Identify the uses of food composition data.   |         |     |
| 4          | 14.a.        | Highlight on the types of diet surveys.   | K4      | CO4 |
|            |              | (OR)  |         |     |
|            | 14.b.        | Analyze the term growth monitoring.   |         |     |
| 5          | 15.a.        | Outline about underwater weighing.  | K3      | CO5 |
|            |              | (OR)  |         |     |
|            | 15.b.        | Trace the anthropometric indicators of adiposity.                                       |         |     |

**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           | Analyze the parameters to be considered while animals are used in nutritional studies. | K4      | CO1 |
| 2          | 17           | Examine radioimmuno assay principle and their application.                             | K4      | CO2 |
| 3          | 18           | Explain origin and progression of food composition table of India.                     | K5      | CO3 |
| 4          | 19           | Evaluate biochemical assessment of nutrition status.                                   | K5      | CO4 |
| 5          | 20           | Discuss about Bioelectric Impedance method.  | K6      | CO5 |

Z-Z-Z

END