

**PSG COLLEGE OF ARTS & SCIENCE  
(AUTONOMOUS)**

**MSc DEGREE EXAMINATION DECEMBER 2025  
(Third Semester)**

Branch - **FOODS AND NUTRITION**

**RESEARCH METHODOLOGY & STATISTICS**

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 type of research includes surveys and fact-finding enquiries of different kinds?<br>a) Fundamental research      b) Applied research<br>c) Action research              d) Descriptive research  | K1      | CO1 |
|            | 2            | Which sampling method involves grouping the population and then selecting the groups or clusters, rather than individual elements, for inclusion in the sample?<br>a) Cluster sampling              b) Simple random sampling<br>c) Multi-stage sampling        d) Systemic sampling | K2      | CO1 |
| 2          | 3            | Which type of <i>data</i> are those that are collected afresh and for the first time, and thus happen to be original in character?<br>a) Secondary data              b) Primary data<br>c) Collection of data            d) Experimental data  | K1      | CO2 |
|            | 4            | This type of method involves collecting data involving the presentation of oral-verbal stimuli and a reply in terms of oral-verbal responses<br>a) Observation method        b) Questionnaire method<br>c) Interview method            d) Case study                                 | K2      | CO2 |
| 3          | 5            | _____ is an attempt to find one single figure to describe whole of figures<br>a) Average                      b) Dispersion<br>c) Deviation                    d) Correlation  | K1      | CO3 |
|            | 6            | The standard deviation concept was introduced by<br>a) Kerlinger                      b) S.P. Gupta<br>c) Karl Pearson                d) Fisher  | K2      | CO3 |
| 4          | 7            | Which means a mere assumption or some supposition to be proved or disproved.<br>a) Correlation                    b) Mean<br>c) Deviation                    d) Hypothesis   | K1      | CO4 |
|            | 8            | Analysis of variance is a statistical method of comparing the _____ of several populations.<br>a) Standard deviation        b) Means<br>c) Correlation                  d) Regression  | K2      | CO4 |
| 5          | 9            | When a mass of data has been assembled, it becomes necessary for the researcher to arrange the same in some kind of concise and logical order. This procedure is referred to as<br>a) Graph                          b) Tabulation<br>c) Figures                        d) Data      | K1      | CO5 |
|            | 10           | The main purpose of graphical representation is to<br>a) Collect data                    b) Calculate statistical values<br>c) Present data in visual form d) Increase data size   | K2      | CO5 |

Cont...

**SECTION - B (35 Marks)**Answer **ALL** questions**ALL** questions carry **EQUAL** Marks (5 × 7 = 35)

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

| Module No. | Question No.   | Question   | K Level | CO  |       |       |   |    |   |    |   |    |   |    |   |     |
|------------|--|--|---------|-----|-------|-------|---|----|---|----|---|----|---|----|---|-----|
| 1          | 11.a.  | Explain the objectives of research.  | K5      | CO1 |       |       |   |    |   |    |   |    |   |    |   |     |
|            | (OR)   |  |         |     |       |       |   |    |   |    |   |    |   |    |   |     |
|            | 11.b.  | Evaluate the cluster sampling method.  |         |     |       |       |   |    |   |    |   |    |   |    |   |     |
| 2          | 12.a.  | Construct the features of the interview method.  | K5      | CO2 |       |       |   |    |   |    |   |    |   |    |   |     |
|            | (OR)   |  |         |     |       |       |   |    |   |    |   |    |   |    |   |     |
|            | 12.b.  | Organize the types of classification of data.  |         |     |       |       |   |    |   |    |   |    |   |    |   |     |
| 3          | 13.a.  | Solve the arithmetic mean from the following data  | CO3     | K3  |       |       |   |    |   |    |   |    |   |    |   |     |
|            |  | <table><tr><th>S.No</th><th>Marks</th></tr><tr><td>1</td><td>14</td></tr><tr><td>2</td><td>36</td></tr><tr><td>3</td><td>45</td></tr><tr><td>4</td><td>70</td></tr><tr><td>5</td><td>105</td></tr></table> |         |     | S.No  | Marks | 1 | 14 | 2 | 36 | 3 | 45 | 4 | 70 | 5 | 105 |
|            |  | S.No   |         |     | Marks |       |   |    |   |    |   |    |   |    |   |     |
|            |  | 1  |         |     | 14    |       |   |    |   |    |   |    |   |    |   |     |
|            |  | 2  |         |     | 36    |       |   |    |   |    |   |    |   |    |   |     |
| 3          | 45   |  |         |     |       |       |   |    |   |    |   |    |   |    |   |     |
| 4          | 70   |  |         |     |       |       |   |    |   |    |   |    |   |    |   |     |
| 5          | 105  |  |         |     |       |       |   |    |   |    |   |    |   |    |   |     |
| (OR)       |  |  |         |     |       |       |   |    |   |    |   |    |   |    |   |     |
| 13.b.      | Construct the importance of correlation in research. |  |         |     |       |       |   |    |   |    |   |    |   |    |   |     |
| 14.a.      | Identify the features of research.                   |  |         |     |       |       |   |    |   |    |   |    |   |    |   |     |
| 4          | (OR)   |  | K3      | CO4 |       |       |   |    |   |    |   |    |   |    |   |     |
|            | 14.b.  | Explain the features of probability sampling.  |         |     |       |       |   |    |   |    |   |    |   |    |   |     |
|            | 15.a.  | Discuss the human ethical committee.   |         |     |       |       |   |    |   |    |   |    |   |    |   |     |
| 5          | (OR)   |  | K6      | CO5 |       |       |   |    |   |    |   |    |   |    |   |     |
|            | 15.b.  | Elaborate on the process of reference citation.  |         |     |       |       |   |    |   |    |   |    |   |    |   |     |

**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           | Explain any two types of random sampling methods.   | K5      | CO1 |
| 2          | 17           | Organize different types of tables and its preparation.   | K3      | CO2 |
| 3          | 18           | Calculate the standard deviation of the following test data.<br>data points: 0, 2, 3, 5, 7, 10, 12, 15, 16, 19. | K3      | CO3 |
| 4          | 19           | Elaborate the importance and applications of the chi-square test.   | K3      | CO4 |
| 5          | 20           | Formulate the format of thesis writing.   | K6      | CO5 |

Z-Z-Z END