

PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)

MSc DEGREE EXAMINATION DECEMBER 2022
(Third Semester)

Branch – FOODS & NUTRITION

RESEARCH METHODOLOGY & STATISTICS

Time: Three Hours

Maximum: 50 Marks

SECTION-A (5 Marks)

Answer ALL questions

ALL questions carry EQUAL marks

(5 x 1 = 5)

- 1 The term research methodology refers to
 - (i) The rules for writing research report or research paper
 - (ii) A specific methodology to study data analysis
 - (iii) The paradigms for data collection, analysis and interpretation
 - (iv) To verify the validity of a scientific research
- 2 Information in the statistical research is
 - (i) Raw data
 - (ii) Organized data
 - (iii) Collected data
 - (iv) Processed data
- 3 In a regression line Y on X, the variable X is known as
 - (i) Independent variable
 - (ii) Outcome variable
 - (iii) Measured variable
 - (iv) Explained variable
- 4 The outcome of tossing a coin thrice are a variable of the type
 - (i) Discrete
 - (ii) Continuums
 - (iii) Qualitative
 - (iv) Quantitative
- 5 In research report, which one is not a major part
 - (i) Inference
 - (ii) Conclusions
 - (iii) Abstract
 - (iv) Foot note

SECTION - B (15 Marks)

Answer ALL Questions

ALL Questions Carry EQUAL Marks

(5 x 3 = 15)

- 6 a What is the need arises to study the purposive sampling.
OR
b Write a note on objectives of research.
- 7 a Give an outline how to validate a questionnaire.
OR
b List the classification of data with an example.
- 8 a Write the disadvantages of measures of dispersion.
OR
b How will you interpret the scatter diagram.
- 9 a Write the applications of students t-test.
OR
b What are the basic principles of a design.
- 10 a Differentiate diagram and graph.
OR
b Write the importance of checking plagiarism.

Cont...

SECTION -C (30 Marks)

Answer ALL questions

ALL questions carry EQUAL Marks

(5 x 6 = 30)

11 a Explain the importance of census study.

OR

b Define sampling and explain in detail about probability sampling.

12 a Why data collection is important in research and write about the various methods data collection.

OR

b What is frequency distribution and explain discrete and continues frequency distribution with an example.

13 a Calculate the mean, median, mode for the following data pertaining to marks in Research Methodology paper out of 140 marks for 80 students in a class:

Marks more than	0	20	40	60	80	100	120
No. of students	80	76	50	28	18	9	3

OR

b A panel of men and women were asked by a consumer testing organization to rank 8 brands of tea according to their taste. The first rank is given to the best tasting tea and last rank is given to worst according to the given data:

Brand	A	B	C	D	E	F	G	H
Panel of Women	5	4	3	6	7	8	1	2
Panel of Men	4	5	6	3	8	7	2	1

Determine how men taste and women tastes in tea are related.

14 a The odds that A speaks the truth is 3:2 and the odds that B speaks the truth is 5:3. In what percentage of cases are they likely to contradict each other's on an identical point?

OR

b Two random samples are drawn from normal populations are:

Sample - I	20	16	26	27	23	22	18	24	25	19	---	---
Sample - II	27	33	42	35	32	34	38	28	41	43	30	37

Obtain the estimates of the variance of the population and test whether two populations have the same variance or not.

15 a The cheques cleared in Indian metropolitan cities in the year 2010 and 2011 are given below. Represent the following data by a suitable diagram.

City	Delhi	Mumbai	Calcutta	Chennai
2010	829	1070	108	313
2011	2670	2443	274	615

OR

b Explain the importance points in thesis writing with bibliography.

Z-Z-Z

END