(6 pages)

## S.No. 6566

## P 22 FSCC 32

(For candidates admitted from 2022-2023 onwards)

M.Sc. DEGREE EXAMINATION, NOVEMBER 2023.

Food Service Management and Dietetics

RESEARCH METHODOLOGY AND STATISTICS

Time: Three hours

Maximum: 75 marks

SECTION A — (20 Marks)

- I. (A) Multiple choice questions:
- $(5\times 1=5)$
- 1. A variable that cause when the dependent variable is the effect of the casual study is
  - (a) Independent variable
  - (b) Control variable
  - (c) Compounding variable
  - (d) Composite variable
- 2. A type of examination looking to find practical solution for existing problem is
  - (a) action research
  - (b) applied research
  - (c) evaluation research
  - (d) fundamental research

- 3. A collection of information from all units in population or an enumeration of population is called as
  - (a) Census
  - (b) Sample
  - (c) Population
  - (d) Rating scale
- 4. The graphical representation of distribution of data by set of rectangles adjacent to each other where each bar as kind of data is
  - (a) polygon
  - (b) histogram
  - (c) coefficient variance
  - (d) kurtosis
- 5. The group under bivariate analysis is,
  - (a) Correlation
- (b) Regression

(c) Both

(d) Never

(B) Fill in the blanks:

 $(5\times1=5)$ 

6. A states that there is no change in the dependent variable due to change in the independent variable.

- 7. An empirical interventional study used to estimate the casual impact of an intervention on target population without random assignment is
- 8. The data collected from the available records is \_\_\_\_\_\_.
- 9. The correlation between one or more quantitative variables and one or more binary variable is
- 10. The average amount of variable in a data set is
- II. Answer ALL questions.  $(5 \times 2 = 10)$
- 11. Define variables:
- 12. What is a case study?
- 13. Write on purposive sampling.
- 14. List the uses of measures of dispersion.
- 15. Give a note on empirical research.

## SECTION B — $(5 \times 5 = 25)$

Answer ALL questions, choosing either (a) or (b).

16. (a) Explain the characteristics of research.

Or

- (b) Differentiate quantitative and qualitative research.
- 17. (a) Write a note on multi stage sampling and multiphase sampling with its advantages.

Or

- (b) Explain the methods of collecting secondary data.
- 18. (a) Illustrate the research process flow chart and explain.

Or

- (b) Enumerate the factors to consider in selection of a research problem.
- 19. (a) Write in detail properties and uses of nominal and ordinal scale.

Or

(b) Explain the errors in measurement in a research.

20. (a) Give a detailed note on non-comparative scales in research analysis.

Or

(b) Explain the types of validity.

SECTION C —  $(3 \times 10 = 30)$ 

Answer any THREE questions.

- 21. Describe the need and development of a good hypothesis in a research with the types of hypothesis.
- 22. Elaborate the problems encountered by researchers and ways to overcome during social sciences researches.
- 23. Discuss in detail on sampling and non-sampling errors with relevant examples.
- 24. The given data reflects the fat content of snacks prepared at two different outlets. Find out whether there is significant difference in the mean fat

X 7 8 13 8 9 4 9 Y 9 9 14 7 6 7 7 25. The following data shows the Age (X) and Weight (Y) of 10 male persons:

X Age 42 38 26 40 28 30 46 52 22 30 Y kgs 60 65 70 62 70 60 58 65 70 68

Find the regression equation Y on X.