

NOVEMBER/DECEMBER 2019

MCM34 — RESEARCH METHODOLOGY

Time : Three hours

Maximum : 75 marks

SECTION A — (5 × 6 = 30 marks)

Answer ALL questions.

1. (a) Define research and discuss the need for research.

Or

- (b) What is the necessity of defining a research problem? Explain.

2. (a) Explain various non-probability sampling technique.

Or

- (b) Explain different types of scale of measurement.

3. (a) Explain the importance of tabulation in the field of social research.

Or

- (b) What points one should observe while using percentages in research studies?



4. (a) The forecast of a product for the first week of March was 600 units, where as the actual demand turned out to be 500 units:
- Find the forecast for the second week of March by assuming the smoothing constant.
 - Find the forecast for the third week of March if the actual demand of the second week is 620 units.

Or

- (b) The factor loading matrix in a factor analysis with 5 variables and two factors is as shown in the following table.

Variable	Factor	
	1	2
1	-0.875	-0.350
2	-8.840	-0.400
3	-0.614	-0.700
4	-0.600	-0.650
5	-0.625	-0.475

Plot the factor loading on a two-dimensional plane ($F_1 - F_2$ plane) and find the revised factors loadings using the varimax factor rotation method

5. (a) "Report writing is more an art that hinges practice and experience". Discuss.

Or

- (b) What are the advantages and disadvantages of SPSS?

SECTION B — (3 × 15 = 45 marks)

Answer any THREE questions.

- Explain briefly experimental design with examples.
- Discuss the main considerations to be kept in mind while framing the questions in a questionnaire.
- Describe the important statistical measures often used to summarize the survey / research data.
- Define multivariate analysis. Explain various types of multivariate analysis.
- Narrate the various steps involved in writing such a report.

