25 (2) RTTB 205

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## RESEARCH TOOLS AND TECHNIQUES IN BUSINESS

Paper : 205

Full Marks: 70

Time: Three hours med has

The figures in the margin indicate full marks for the questions.

Answer any five questions.

- 1. (a) 'Majority of the research designs are exploratory cum descriptive in nature in business research'. Examine the above statement and justify with examples why you agree / disagree with it.
  - (b) Distinguish between cross-sectional and longitudinal designs. In what situations would you recommend the usage of one over the other?

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Contd.

- 2. Indicate the type of primary scales, comparative and non-comparative scales you would use for each of the following characteristics. Discuss the merits and limitations of each scale. Develop an appropriate question for each characteristics by the chosen scale
  - (i) Income and Education level.
  - (ii) Brand loyalty of a consumer durable.
  - (iii) Opinion survey about two local newspapers.
  - (iv) Brand preferences of mid-sized cars. 14
- 3. (a) Define the terms Independent Variables
  Test Units, Dependent Variables and
  Extraneous Variables with respect to
  Experimental Design by means of suitable
  examples.
  - (b) As a researcher, how will you take care of the following problems in designing a questionnaire? Illustrate your answer by providing incorrect and correct questions for each item given below:
    - (i) Failing to define the issue
    - (ii) Using ambiguous words

- (iii) Using leading questions
- (iv) Using generalizations and estimates.
- (a) Distinguish between Focus Group Discussions and Depth Interviews. 6
  - (b) Briefly explain the steps in planning and conducting either Focus Group Discussion or Depth Interviews for any one of the problems given below:
    - (i) COMPAQ wants to understand the consumer decision-making process for purchases of personal computer.
    - (ii) ITC wants to introduce Organic Cereals and Processed Foods. 8
  - (a) 'A convenience sample may contain more relevant units than a judgemental sample'. Explain distinguishing features of the two sampling techniques.
  - (b) State the limitations of using probability sampling technique in business or social science research.

- (c) Describe the procedure for determining the sample size necessary to estimate a population mean, given the degree of precision and confidence and a known population variance.
- 6. (a) What is measurement error? Discuss various types of measurement accuracy and methods to measure them.
  - (b) The current advertising campaign for a major soft drink brand would be changed if less than 30 per cent of the consumers like it.
    - (i) Formulate the null and alternative hypotheses.
    - (ii) Which test statistic would you use? Give reasons.
    - (iii) Discuss briefly the different steps used for hypothesis testing. 7
- 7. (a) (i) Define Factor Analysis. Explain the conditions that are required to be satisfied before carrying out factor analysis exercise.

(ii) Interpret the rotated solution and name the factors for the given "Rotated Component Matrix". Also calculate Eigenvalues and Percentage of variance explained by each Factor.

Rotated Component Matrix

Attributes		Component 1	Component 2
	Add to image of company	- 0.028	0.221
	I enjoy working in the company	0.928	0.194
	My company is well respected	0.976	0.142
	The fellow workers are helpful	0.376	0.902
	Team work is recognized by the company	0.375	0.903
	We have a very relaxed working atmosphere in the company	0.953	0.145

Or

(b) Distinguish between correlation and regression with the help of an example. How are the two concepts used together? Outline briefly the procedure for testing the significance of the slope coefficient in a regression analysis.

(c) Briefly describe the ideal structure of either a (i) Technical Research report or (ii) Business Research report.

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