

**ME-208**

May-2025

**IMBA Full Time-Sem-8 (Regular)**

**IMBA in Finance (FM) / IMBA in HR and Public Administration (HRPA)/  
IMBA in Business Management (BM)/ IMBA in Business Economics and  
Management (BEM)**

**Code: MBA\_205/ HR\_MBA\_205/ BEM\_MBA\_205/ FM\_MBA\_205 :  
Business Research and Analytics (BRA)**

**Time : 2:30 Hours]****[Max. Marks : 70**

1. A teacher wants to compare the performance of three different teaching methods (X, Y, Z) on students of three different IQ levels (Low, Medium, High). The following table shows average scores (out of 100) of students in a standardized test : **14**

IQ Level	Low	Medium	High
X	60	70	80
Y	55	68	78
Z	50	65	75

Perform a Two-Way ANOVA at 5% level of significance.

Given :  $F_{0.05}(2, 4) = 6.94$

2. Samples of two types of electric bulbs were tested for length of life and following data were obtained : **14**

	Type A	Type B
Sample Size	8	7
Sample mean	1234 hours	1036 hours
Sample S.D.	36 hours	40 hours

Is the difference in the means sufficient to warrant that type A is superior to type B regarding length of life ? (tabulated value = 1.782)

**OR**

2. Suppose a drug company develops a new drug, designed to prevent colds. The company states that the drug is equally effective for men and women. A sample of 100 women and another sample of 200 men from a population of 100,000 are given the drug. In the samples, 38% of the women caught the cold; and 51% of the men caught the cold. Based on these findings, can we reject the company's claim that the drug is equally effective for men and women ? Based on these findings, can we conclude that the drug is more effective for women than for men ? Use a 0.05 level of significance. **14**

3. Under what circumstances would you recommend : 14
- (a) A probability sample ?
  - (b) A non-probability sample ?
  - (c) A stratified sample ?
  - (d) A cluster sample ?

**OR**

3. Explain the meaning and significance of a Research design. “Research design in exploratory studies must be flexible but in descriptive studies, it must minimise bias and maximise reliability.” Discuss. 14
4. “We can teach methods of analysis, yet any extensive research... requires something equally important : an organisation or synthesis which provides the essential structure into which the pieces of analysis fit.” Examine this statement and show how a good research report may be prepared. 14

**OR**

4. Explain the significance of a research report and narrate the various steps involved in writing such a report. 14
5. Briefly describe the different steps involved in a research process. 14
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