M.Sc. (Industrial Chemistry) and Ph.D course work

(Mid Term - 2 Examination, Jan 2022)

Time: 1 hours   Max. Marks = 30

Note: All questions are compulsory and carry equal marks.

UNIT –II

1. ..
    a. Point out the possible sources of error in measurement. Describe the tests of sound measurement.
    b. Write short notes on:
        1) Semantic differential scale;
        2) Arbitrary scales;
        3) Multidimensional scaling (MDS).
        4) Cross tabulation;
        5) Discriminant analysis

                                                                                    5, 2x5

2. ..
    a. What do you mean by multivariate analysis? Explain how it differs from bivariate analysis.
    b. Clearly explain the difference between collection of data through questionnaires and schedules.

                                                                                    5,5

3. The following are the number of departmental stores in 10 cities: 35, 27, 24, 32, 42, 30, 34, 40, 29 and 38.
    a. If we want to select a sample of 15 stores using cities as clusters and selecting within clusters proportional to size, how many stores from each city should be chosen? (Use a starting point of 4).
    b. What sampling design might be used to estimate the weight of a group of men and women?

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