AF-143

April-2015

T.Y. M.Sc., (CA & IT) Integrated

Research Methodology

Time : 2 Hours]   **[Max. Marks : 50**

Instruction :   Statistical tables will providing on request.

1.   Give difference between basic research and applied research.   **10**

                                 OR

Comment on objectives and significance of research.

2.   Explain cluster and stratified sampling in detail.   **10**

                                 OR

Mention the methods of collecting primary data.

3.   Why literature review is required for any research process ?   **10**

                                 OR

Which are the main steps involved in any research process ?

4.   Solve following : (any **two**)   **10**
   (1)   A machine produced 20 defective articles in a batch of 400. After overhauling it produced 10 defectives in a batch of 300. Has the machine improved ? Use 1% level of significance.

   (2)   The mean life time of sample of 100 fluorescent light tubes produced by a company is computed to be 1570 hours with a standard deviation of 120 hours. The company claims that the average life of the tubes produced by the company is 1600 hours. Using the level of significance of 0.05. Is the claims acceptable ?

   (3)   Give different steps involved in Report Writing.

5. A movie producer is bringing out a new movie. In order to map out his advertising he wants to determine whether the movie will appeal most to a particular age group or whether it will appeal equally to all age groups. The producer takes a random sample from persons attending a pre-reviewing showing of the new movie and attains the following result. Use chi square test for checking that liking or disliking of a movie by individuals is independent of the age groups ? Take 5% level of significance. **10**

Persons	Age groups			
	Under-20	20-39	40-59	60 and over
Liked the movie	320	80	110	200
Disliked the movie	50	15	70	60
Indifferent	30	5	20	40

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