

Seat No. : \_\_\_\_\_

# AB-154

April-2019

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

## Research Methodology

Time : 2 Hours]

[Max. Marks : 50

**Instruction :** Statistical table will be provided on request.

1. Describe briefly the different steps involved in a research process. **10**

**OR**

Distinguish between research methods and research methodology. What are the criteria of good research ?

2. Explain the meaning and significance of a research design. **10**

**OR**

Explain : Stratified sampling, Judgement sampling, Multistage sampling, Area sampling.

3. Write briefly about the Merits and Demerits of Questionnaires. **10**

**OR**

Discuss Interview as a technique of data collection.

4. What is processing of data ? Write about the generally accepted principles of Tabulation. **10**

**OR**

What precautions one should take in writing Research report.

5. The ETC service conducted a study to investigate the difference between the scores of female and male students on the Mathematics aptitude test. The study identifies a random sample of 562 female and 852 male students who achieved the same high score on the mathematics portion of the test. That is, the male and the female students are viewed as having similar high ability in mathematics. The verbal scores for the two samples are :

	Female	Male
Sample Mean	547	525
Sample standard deviation	83'	78

Do the data support the conclusion that the given population of male and female students with similar high ability in mathematics, the female students will have a significantly high verbal ability ?

Test at  $\alpha = 0.05$  significance level. What is your conclusion ?

**10**

**OR**

The average breaking strength of steel rods is specified to be 18.5 thousand kg. A sample of 14 rods were tested for this. The mean and standard deviation obtained were 17.85 and 1.955 respectively. Test the significance of the deviation. Test at  $\alpha = 0.05$  significance level.

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