## II Semester M.Com. Degree Examination, September/October 2022 (Choice Based Credit System) COMMERCE **Business Research Methods**

Time: 3 Hours

## SECTION – A

Answer **any four** questions out of seven, **each** question carries **10** marks. Answer to **each** question should **not** exceed **4** pages. (4×10=40)

- 1. What do you mean by business research? Describe its importance.
- 2. What is the meaning of measurement in research ? What difference does it make whether we measure in terms of a nominal, ordinal, interval or ratio scale ? Explain giving examples.
- 3. What is a 'Scatter diagram'? How does it help in studying correlation between two variables ? Explain.
- 4. Explain the terms :
  - a) Level of significance
  - b) One-tailed and two tailed tests.
- 5. The following data give the experience of machine operators and their performance ratings as given by the number of good parts turned out per 100 pieces :

Operator :	1	2	3	4	5	6	7	8
Experience (in years) (x) :	16	12	18	4	3	10	5	12
Performance Ratings (y) :	87	88	89	68	78	80	75	83
Calculate the regression line of performance ratings on experience and								
estimate the probable performance if an operator has 7 years experience.								

6. In a random sample of 400 persons from a large population, 120 are females. Can it be said that males and females are in the ratio 5 : 3 in the population ? Use 1% level of significance.

Reg. No.

**CMH 455** 

Max. Marks: 70

## CMH 455

7. The demand for a particular spare part in a factory was found to vary from day to day. In a sample study the following information was obtained :

Days :MonTuesWedThursFriSatNo. of parts demanded :1,1241,1251,1101,1201,1261,115Test the hypothesis that the number of parts demanded does not depend on<br/>the day of the week. (The table value of  $\chi 2$  for 5 d.f. at 5% level of significance<br/>is 11.07).

## SECTION – B

Answer **any two** questions out of three, **each** question carries **15** marks. Answer to **each** question should **not** exceed **7** pages. (2×15=30)

- 8. What is linear regression ? Why are there, in general two regression lines ? When do they coincide ? Explain the use of regression equations in economic enquiry.
- 9. The nicotine content in milligrams of two samples of tobacco were found to be as follows :

Sample A: 24 27 26 21 25 Sample B: 27 30 28 31 22 36

Can it be said that two samples come from normal populations having the same mean.

- 10. The three samples below have been obtained from normal populations with equal variances.
  - 87121059710131491211914

Use analysis of variance technique and test the hypothesis at 5% level that the population means are equal.