### 2018

(December)

(Held in January 2019)

### COMMERCE

Paper: 203

# (Research Methodology and Statistical Analysis)

Full Marks: 80

Time: Three hours

## The figures in the margin indicate full marks for the questions.

Answer the following.

1. (a) What are the different types of research? Explain them in brief.

4+12=16

#### Or

(b) What do you mean by data? Distinguish between primary data and secondary data. 4+12=16

2. (a) What is measure of skewness? Explain the three different formulas to compute the coefficient of skewness.

6+10=16

#### Or

- (b) What are the different measures of central tendency? How these measures are used in analyzing data under different circumstances? 4+12=16
- 3. (a) Explain what is probability in statistics. State the situation under which multiplicative probability model is used. 4+12=16

#### Or

- (b) State Bayes' theorem and illustrate it with an example. 8+8=16
- 4. (a) Discuss the methods of determining sample size.

#### Or

(b) Distinguish between type-I error and type-II Error.

5. (a) What is non-parametric statistical test?
Under what circumstances nonparametric tests are used?

6+10=16

#### Or

(b) Explain Wilcoxon Signed test with appropriate examples. 16