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## **B.Com DEGREE END SEMESTER EXAMINATION MARCH 2016**

(2015 Admission)

SEMESTER: 2, CORE COURSE

COURSE: 15U2CRCOM4, QUANTITATIVE TECHNIQUES FOR BUSINESS

RESEARCH

Time: Three Hours MaximumMarks:

## **SECTION A**

- I. Answer all the questions. Each question carries 2 Marks.
  - **1.** State the degrees of correlation.
  - 2. What is a Research Problem?
  - **3.** What is meant by Plagiarism?
  - **4.** What is Regression Analysis?
  - **5.** What do you understand by Inverse Probability?
  - 6. Point out the purpose of Diagrams.
  - 7. What is meant by Bibliography?
  - 8. What is non-sampling errors?
  - **9.** What is Classification?
  - **10.** What is population?

 $(2 \times 10 = 20)$ 

### **SECTION B**

- II. Answer any 5 Questions. Each Question carries 5 Marks.
  - **11.** Three unbiased coins are tossed. What is the probability of obtaining (1)all heads (2) two heads (3)one head (4) at least one head (5)at least two heads (6) at the most one head.
  - **12.** You are given the following data.

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Arithmetic Mean : 36 85

Standard Deviation: 11 8

Correlation coefficient between x and y = 0.66

(i) Find the two regression equations

- (ii) Estimate the value of x when y = 75
- **13.** The probability that a contractor will get a plumbing contract is 2/3 and the probability that he will not get an electric contract is 5/9. If the probability of getting at least one contract is 4/5, what is the probability that he will get both the contracts.
- **14.** Compute Karl Pearson's Coefficient of Correlation.

Price (Rs) : 11 12 13 14 15 16 17 18 19 20

Demand (Rs) : 30 29 29 25 24 24 24 21 18 15

- 15. Distinguish between primary and secondary data.
- **16.** How many words can be formed with the letters of word 'MANAGEMENT'?
- **17.** What are the criterias of a good research?

 $(5 \times 5 = 25)$ 

#### **SECTION C**

# III. Answer any 3 Questions. Each Question carries 10 Marks.

**18.** Out of the two lines of regression given by

$$X + 2y - 5 = 0$$
 and  $2x + 3y - 8 = 0$ 

Which one is the regression line of x on y?

- 19. Explain the different sampling methods.
- **20.** Ten competitors in a beauty contest are ranked by three judges in the following order.

First Judge : 1 6 5 10 3 2 4 9 7 8

Second Judge : 3 5 8 4 7 10 2 1 6 9

Third Judge : 6 4 9 8 1 2 3 10 5 7

Use correlation coefficient to discuss which pair of judges have opposite approach to common taste in beauty.

**21.** Draw a pie diagram for the following data on the basis of Income of a Tax Practitioner.

Food : 32.4%

Education : 18.9%

Clothing : 14.5% Medicine : 8.9%

Entertainment : 25.3%

**22.** Explain the requisites of a good Report.

 $(10 \times 3 = 30)$ 

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