

D 72197

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Name.....

Reg. No.....

**FIRST SEMESTER M.B.A. DEGREE EXAMINATION, DECEMBER 2014**

(CUCSS)

Management

**BUS 1C 08— QUANTITATIVE TECHNIQUES**

(2013 Admission onwards)

Time : Three Hours

Maximum : 36 Weightage

**Part A**

*Answer the all the questions.  
Each question carries 1 weightage.*

1. Define probability.
2. What is a random variable ?
3. Write the formula for finding rank correlation co-efficient.
4. Define large sample tests.
5. Define the term "Degree Of Freedom".
6. What is the relevance of variable view in SPSS ?



(6 × 1 = 6 weightage)

**Part B**

*Answer any six questions.  
Each question carries 3 weightage.*

7. What is the probability of selecting a boy from a class containing 4 Boys and 3 Girls?
8. Find the probability that the card drawn is either spade or the diamond when a card is drawn at random from an ordinary pack of 52 cards.
9. Explain the properties of binomial distribution.
10. If 3% of electric bulbs manufactured by a company are defective then find the probability that in a sample of 100 bulbs, exactly five bulbs are defective.
11. What are the assumptions in a student's 't' test.
12. Explain any three non probability sampling techniques.

Turn over

13. Compute the regression equation of  $y$  on  $x$  from the data given below.

X	...	2	3	4	5	6
Y	...	3	5	4	8	9

14. Discuss the data analysis tools in SPSS.

(6 × 3 = 18 weightage)

### Part C

*Answer any two questions.  
Each question carries 6 weightage.*

15. From the following data and find out whether the immunisation is effective in preventing tuberculosis.

	Affected	Not Affected
Immunised	31	469
Not Immunised	185	1784

16. A soap manufacturing company was distributing a particular band of soap through a number of retail shops. Before a heavy advertisement campaign, the mean sales per week per shop were 140 dozens. After the campaign, a sample of 20 shops was taken and mean sales was found to be 147 dozen with SD 16. Can you consider the advertisement effective ?
17. There are two urns one containing 5 White and 4 Black balls and the other containing 6 White and 5 Black balls. One urn is chosen and one ball is drawn. If it is White, what is the probability that the urn selected is the second.

(2 × 6 = 12 weightage)