A-152

B.B.A. EXAMINATION, Dec. 2017

(First Semester)

(Re-appear Only)

(BBA)

BBA-103

BUSINESS MATHEMATICS

Time : 3 *Hours*] [*Maximum Marks :* 70

Before answering the question-paper candidates should ensure that they have been supplied to correct and complete question-paper. No complaint, in this regard, will be entertained after the examination.

Note : Attempt *Five* questions in all. Q. No. **1** is compulsory. Attempt other *four* questions, selecting *one* question from each Unit. All questions carry equal marks.

Unit IV

8. What is the meaning of Differentiation ? How is it different from integration ? **14**

9. Solve the following by using Matrix method : **14**

$$2x - 3y = 13,\ 4x + y = 5$$

1. Attempt all the following questions :

(a) Define set with example.

(b) What do you understand by minor and cofactor of a matrix ?

(c) Integrate the function $(2x - 3)^2$ with respect to x.

(d) Define arithmetic progression.

(e) A coin is tossed three times. Write their possible outcomes.

(f) Find Cartesian product of A = (5, 6) and B = (3, 4) ?

(g) Two business applications of geometric progression. **2+2+2+2+2+2+2=14**

Unit I

2. What are the different types of Sets ? Explain with examples the presentation and equality of Sets. **14**

3. If U = {a, b, c, d, e, f}; A = {a, b, c, d}, B = {b, c, d, e} and C = {c, d, e, f}, then check that : **14**

(a) $A \cup (B \cap C) = (A \cup B) \cap (A \cup C)$

(b) $(A \cap B)' = A' \cup B'$

(c) $(A \cup B)' = A' \cap B'$.

Unit II

4. Define Logarithm. Write down the different laws of Logarithm. **14**

5. Find the sum of the series $2 \times 5 + 5 \times 8 + 8 \times 11 +$ ..... up to n terms. **14**

Unit III

6. What is the Bionomial theorem ? Explain the General and Middle terms of Bionomial theorem. **14**

7. If ${}^nP_5 = 20^n P_3$ then find the value of n. **14**