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Total No. of Pages : 02

Total No. of Questions : 09

BBA (2013 to 2017)/BRDM/B.SIM (2014 & Onwards) (Sem. 2) BUSINESS MATHEMATICS Subject Code : BBA-203 M.Code : 10546

Time : 3 Hrs.

Max. Marks : 60

- INSTRUCTIONS TO CANDIDATES : I. SECTION-A IS COMPULSORY consisting of TEN questions carrying TWO marks each.
- 2. SECTION-B consists of FOUR Sub-sections : Units-I, II, III & IV.
- 3. Each Sub-section contains TWO questions each, carrying TEN marks each.
- 4. Students have to attempt any ONE question from each Sub-section.

SECTION-A

1. a) Define Equal set.

b) Write Power set {1, 2, 3}

c) Solve :

 $\log(x^2 - 4x + 5) = 0$

d) Define Depreciation.

e) Define Lower triangular Matrix

f) Find the 1 = 21 = 21 = 21 = 21 = 21 = 37

g) Find the second derivative of $e(1 x^{2})$ w.r.t. x.

- h) Differentiate tanx.logx w.r.t. x
- i) Define Compound interest.
- j) Compute (99)4 by using Binomial.

SECTION-B

UNIT-I

2. Using logarithms, compute the following :

(39.3)1/3 29.5 67.8

3. State and Prove De-Morgan's law.

UNIT-II

- 4
 16
 1
 2
 6
 1

 4.
 Find AB if
 A
 1
 11
 1 and B0
 0
 12
 0

 1
 1
 1
 1
 1
 1
 1
 1
- 5. Solve: 2x + 5y z = 9; 3x 3y + 2z = 7; 2x 4y + 3z = 1.

UNIT-III

- 6. Differentiate when $xy + y^{x} = 1$ w.r.t. x.
- 7. Find the maximum and minimum value of sinx + cosx on $\begin{bmatrix} 1 \\ 1 \\ 2 \end{bmatrix}$, $\begin{bmatrix} 1 \\ 2 \\ 2 \end{bmatrix}$.

UNIT-IV

- 8. Find the C.I. on Rs. 27000/- @ 4% p.a. for 9 years.
- 9. Particular three consecutive coefficients in the expansion of (1 + x)n are in the ratio 1:3:5. Find n.

NOTE : Disclosure of Identity by writing Mobile No. or Making of passing request on any page of Answer Sheet will lead to UMC against the Student.