B.M.S COLLEGE FOR WOMEN, AUTONOMOUS
BENGALURU – 560004
SEMESTER END EXAMINATION – SEPTEMBER-2023

BBA – II Semester

BUSINESS MATHEMATICS
(NEP Scheme 2022-23 onwards F+R)

Course Code: BBA2DSC06B　　　　　　　　　　　　　**QP Code:2028**
Duration: 2 ½ Hours　　　　　　　　　　　　　　**Max. Marks: 60**

SECTION-A

1. Answer any FIVE of the following questions. Each question carries TWO Marks.　　(5X2=10)

   a. What are Rational numbers?
   b. What is an Equation?
   c. Find the 10th term of the sequence 3,5,7,9…
   d. What is Banker's Discount?
   e. A man can do 12 pencils in 15 minutes. How long will it take him to turn out 96 pencils?
   f. Find the value of $\log_3 9$.
   g. Evaluate $\begin{vmatrix} 2 & 4 \\ -5 & -1 \end{vmatrix}$

SECTION- B

Answer any FOUR of the following question. Each question carries FIVE Marks.　　(4X5=20)

   1. Find the larger number that can exactly divide 513, 783 & 1107?
   2. Solve $\frac{3x}{4} - 8 = \frac{2x}{5} + 3$
   3. A man saved ₹ 16,500 in 15 years. In each year after the first, he saved ₹ 100 less he did in the preceding year. How much did he save in the first year?
   4. Find the Compound interest ₹ 3,000 for 3 years at 4% p.a.

   5. Use Cramer's rule to solve the following equation for x and y
      b. $x – 16 = 2y$
      c. $3x + 1 = -y$

SECTION- C

Answer any TWO of the following question. Each question carries TWELVE Marks.   **(2X12=24)**

6. Solve by formula method $\dfrac{1}{x-2} + \dfrac{2}{x-1} = \dfrac{6}{x}$

7. Find TD, BD and BG on ₹ 600 due 4 years hence at 5% p.a

8. The price of 4 mathematics books, 2 Accounting, 3 Computers books is ₹ 134. The cost of one mathematics, 3 Accounting, 2 computers books is 81 and the cost of 2 mathematics books, 1 Accounting and 5 computers books is ₹ 130. Find the rate per book of each.

SECTION-D

Answer any ONE of the following questions, carries SIX Marks.   **(1X6=06)**

9. State the various laws of indices and Logarithms
10. Mr. Ramesh borrows Rs.6,000 upon a contract to repay the same in 20 equal monthly instalments beginning with the end of the first month. Determine the Monthly payment charging interest at 10% p.a. compound.

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