Roll No. ☐☐☐☐☐☐☐☐☐☐☐☐   Total No. of Pages : 02

Total No. of Questions : 07

BBA (Sem.–1)
BUSINESS MATHEMATICS/MATH–I
Subject Code : BB-102
M.Code : 10502

Time : 3 Hrs.   Max. Marks : 60

INSTRUCTIONS TO CANDIDATES :
1. SECTION-A is COMPULSORY consisting of TEN questions carrying TWO marks each.
2. SECTION-B contains SIX questions carrying TEN marks each and students have to attempt any FOUR questions.

SECTION-A

1. **Write briefly :**

   a. Set equality

   b. Difference of Sets

   c. Cartesian Product of Sets

   d. Truth tables

   e. Real numbers

   f. Log tables

   g. Cramer's rule

   h. Compound interest

   i. Depreciation

   j. Differential Calculus

SECTION-B

Q2. A group of sports students in a university play games. The group composition has 40 volleyball players, 50 cricket players, 50 hockey players and 15 both cricket and hockey, 20 both hockey and volley ball, 15 cricket and volley ball and 10 played all three. If every sports student played at least one game, find the number of sports students and how many played only cricket, only hockey and only volley ball?

Q3. For any real numbers C and D prove that :

C.(– D) = – C.(D) and (– C). (–D) = CD

Q4. Solve the equations :

9X + 3Y–4Z = 35

X–Y–Z = 4

2X–5Y–4Z–48 = 0

Q5. Expand the following expression :

$[(4x/5) – (5/2x)]^6$

Q6. Explain Binomial theorem in detail.

Q7. Write short note on the following :

   a. Logarithm laws of operation

   b. Gauss elimination method

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.