

Roll No.

Total No. of Pages : 02

Total No. of Questions : 07

B.Com. (Sem.-1st)

BUSINESS MATHEMATICS

Subject Code : BCOP-104 (2011 & Onward Batch)

Paper ID : [B1104]

Time : 3 Hrs.

Max. Marks : 60

INSTRUCTION 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 has to attempt any FOUR questions.

SECTION-A

1. Write briefly :

(a) Geometric Progression

(b) Amortisation

(c) Ratio

(d) Convertible Bonds

(e) Cross Rate

(f) Time Value of Money

(g) Promissory Note

(h) Accrued Interest

(i) Yield to Maturity

(j) Compound Interest

SECTION-B

2. (a) The first term of an A.P. is 10, the last term is 50. If the sum of all terms is 480, find the common difference and the number of terms.
 (b) The sum of an infinite G.P. is $\frac{1}{3}$ and the first term is $\frac{1}{4}$. Find the G.P.
3. You deposit Rs. 4,000 each month into a retirement account paying 8% interest. How much will you have in 25 years when you retire?
4. You are considering the purchase of two different insurance annuities. Annuity A will pay you Rs. 10,000 each year for eight years. Annuity B will pay you Rs. 8,000 per year for 12 years. Assuming your money is worth 10% and that each costs the same to purchase today, which annuity would you prefer?
5. Rahim, Karim and Gaffur start a business each investing Rs. 2,00,000. After 5 months Sultan withdrew Rs. 50,000, Ahmed withdrew Rs. 40,000 and Kasim invests Rs. 60,000 more. At the end of the year, a total profit of Rs. 7,20,000 was recorded. Find the share of each.
6. Consider two bonds 'A' and 'B'. They have the following characteristics :

	Bond A	Bond B
Face Value	Rs. 100	Rs. 200
Coupon Rate	9%	12%
Time to Maturity	5 Years	5 Years
Current Market Price	Rs. 100	Rs. 200
Coupon Payment	Annually	Bi-annually

7. What do you mean by exchange rate? Give a detailed note on various methods to determine exchange rate.