Roll No. ....

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B.COM (Sem. – 1st)
BUSINESS MATHEMATICS
SUBJECT CODE : BCOP – 104 (2011 Batch)
Paper ID : [B1104]

Time : 03 Hours   **Maximum Marks : 60**

Instruction to Candidates:

     1)   Section - A is **Compulsory**.

     2)   Attempt any **Four** questions from Section - B.

Section - A

Q1)   *(10 × 2 = 20)*

     a)   Which terms of series.

         $12 + 9 + 6 + $ ……… is equal to – 30

     b)   Find the sum of following series

         $8 + 4/2 + 4 + $ ………upto n terms

     c)   Difference between Arithmatic and Geometric progression.

     d)   Formula for calculating compound. Interest half yearly.

     e)   Find the sum of terms $1 + 3 + 5 + 7 + $ ………… $+ (2n – 1)$

     f)   Define YTM.

     g)   Explain the difference between trade discount and cash discount.

     h)   If French Franc \$ is 10.17/10.20 and Swiss Franc \$ is 1.73 and 1.75 Find out French Franc / Swiss Franc rate

     i)   If the rupee dollar rate is 46/46.15 and dollar pound rate is 1.71/1.74. What will be the rupee pound rate.

     j)   Show with an example how mark up present based on cost calculated.

Section - B

                                                            (4 × 10 = 40)

Q2) (a)   Find the sum of series :

         $2 + 3\frac{1}{2} + 5 + 6\frac{1}{2} + $ ………… to 25 terms

     (b) $72 + 70 + 68 + $ ……….+ 40

Q3)   B arranges to pay off a debt of Rs. 9600 in 48 annual instalments which form an arithematic series. When 40 of these instalments are paid B becomes insolvent and his creditor funds Rs. 2400 still remains unpaid Find the value of each of the first three instalments of B ignore interest.

Q4) The rate of monthly salary of a person is increased annually in AP. It is known that he was during Rs. 400 a month during the 11th year of his service and Rs. 760 during the 29th year. Find the starting salary and the rate of annual increment. What should be his salary at time of retirement just on completion of 36 years of service?

Q5) At 10% per annum compound interest a sum of money accumulates to Rs. 8750 in 4 years. Find the sum invested initially.

Q6) (a) Write the steps to calculate the rate of yield to maturity. Explain with an example.

(b) Explain the various causes of changes in exchange rate.

Q7) (a) Find $ 1000 Levi Strauss $9\frac{1}{2}$ $ 19 bonds were purchased at 80. What was the current yield on bonus.

(b) Write notes on :
   (i) Chain rule (in course of exchange)
   (ii) Introduction to foreign exchange.

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