

Subject : Introduction to Business Mathematics

Day : Monday
Date : 05/12/2016



Time : 10.00 AM TO 1.00 PM
Max Marks : 80 Total Pages : 2

N. B. :

- 1) Attempt **ANY FIVE** questions from Section-I. Each question carries **10** marks.
- 2) Attempt **ANY TWO** questions from Section-II. Each question carries **15** marks.
- 3) Both the sections should be written in the **SAME** answer book.

SECTION – I

- Q. 1** a) Ratio of two numbers is 4 : 7 and the smaller number is 24. Find the bigger number. (05)
- b) Cost price of a table is 80 % of its selling price. While offering 12 % cash discount, the seller receives Rs. 440/- Find the cost price of the table. (05)
- Q. 2** a) What sum of money put at simple interest for 2 years at 8 % p. a. will amount to Rs. 1,276/- (05)
- b) Find $\frac{dy}{dx}$ if $y = 7x^3 - 4x^2 + 7x + 2$. (05)
- Q. 3** a) Find 20th and 35th term of an A. P. : 12, 19, 26, (05)
- b) If $a : b = 2 : 3$ and $b : c = 5 : 7$, then find $a : c$ and $a : b : c$. (05)
- Q. 4** a) Population of a city in a specific year was 80,000. There was arise of 10 % for each of the next 3 years. Find the population at the end of 3 years. (05)
- b) Find the compound interest on Rs. 80, 000/- at 12 % per annum for 3 years, compounded annually. (05)
- Q. 5** The Net Salary of an employee is computed as follows: (10)
- Net Pay = Basic Pay + D. A. + H. R.A.+ Incentives + Bonus.
The D.A. is paid @ 80 % on Basic Pay. H.R.A. is paid @ 12 % on Basic Pay.
Sujata is an employee and has a basic pay of Rs. 22,000/-. She gets incentives @ 6 % on basic pay and Rs. 2,000/- as bonus.
Find the Net Pay of Sujata.
- Q. 6** a) Person 'A' started a business with Rs. 21,000/-. Person 'B' joined him with Rs. 36,000/- afterwards. If the profits are divided equally, after how many months did 'B' join 'A'? (05)

P. T. O.