Vidya Vikas Mandal's

Shree Damodar College of Commerce & Economics Margao Goa

F.Y.BBA (FS), Semester I, Repeat End Semester Examination, October 2015

Duration: 1 Hour **BUSINESS MATHEMATICS** **Total Marks:30**

Instructions: 1) Figures to the right indicate maximum marks.
2) All questions are compulsory.
3) Non- scientific calculator is allowed.

Q1. A) For the given series of G.P., 1, 3, 9, 27 ..... find t_6 and S_6. (4 marks)

B) If the 5^{th} term of an A.P. is 35 and its 9^{th} term is 59. Find its n^{th} term and sum of n terms. (6 marks)

OR

X) Find the sum of all the no.s between 200 and 300 which are exactly divisible by 5. (4 marks)

Y) The sum of 3 numbers in A.P. is 24 and sum of their squares is 242. Find the numbers (6 marks)

Q2. A) The sum of 2 no.s is 30. Two times the sum of the numbers exceeds four times the difference between by 10. Find the numbers. (6 marks)

B) Using formula method, solve the quadratic equation: $\frac{1}{x} - \frac{1}{x-1} = \frac{1}{3}$ (4 marks)

OR

X) Solve the equation using substitution method : $\frac{1}{x+y} + \frac{1}{x-y} = \frac{2}{3}$ and $\frac{1}{x} - \frac{1}{x-1} = \frac{1}{3}$ (6 marks)

Y) Find the solution to it using elimination method: $3x + 8y = 17$ and $x + 10y = 13$ (4 marks)

Q3. A) Ashu purchase 180 dozens of eggs at Rs. 15.80 per dozen. Out of which 60 eggs are broken in transportation. He sells remaining eggs at Rs. 18 per dozen. If makes profit or loss? Find its percentage (6 marks)

B) The simple interest on a certain sum for 1.5 years at 12% p.a. is Rs. 60 less than the simple interest on the same sum for 3 years at 10% p.a. find the sum. (4 marks)

OR

X) On selling a sofa for Rs. 8768. Naresh earns profit of $1/15^{th}$ of the cost price. Find the cost price of the sofa. (6 marks)

Y) What will the compounded interest on Rs. 18000 per 3 years at rate 6% p.a.? (4 marks)