**SAINTGITS COLLEGE OF APPLIED SCIENCES, PATHAMUTTOM P.O, KOTTAYAM**

**FIRST INTERNAL EXAM [JANUARY-2016]**

**B.A CORPORATE ECONOMICS**

**MATHEMATICS FOR ECONOMICS II**

Time: 2 hours Maximum: 50 Marks

**Section A**

*Answer* ***all*** *questions. Each question carries* ***1 mark****.*

1. Find the derivative of

2. Find the derivative of

3. Write the product rule of differentiation.

4. Write the function of a function rule.

5. If y=find  **(5×1=5)**

**Section B**

*Answer any* ***five*** *questions . Each question carries* ***2 marks****.*

6. Find the derivative of (x3+1) (1+x).

7. If y=

8. Total revenue function of a firm is given by R=21x-x2.Find the marginal revenue when 10 units are sold.

9. If y=2+x5, find the fourth derivative of y with respect to x

10. Differentiate with respect to

**(5×2=10)**

**Section C**

*Answer any* ***five*** *questions. Each question carries* ***4 marks****.*

11. If , find .

12. Find y1 and y2 if y=x2logx

13. Differentiate

14. Find if y=

15. The demand law for sugar is p=15-x .Find the marginal revenue function .Represent graphically. When is MR zero?

16. If find

17. If show that

**(5×4=20)**

**Section D**

*Answer any* ***one*** *question. Each question carries* ***15 marks****.*

18. (i)If y= ,prove that

(ii)Find the derivative of

19. (i)If ,find

(ii)Find the derivative of

**(1×15=15)**