TB142350A **Reg. No…….**
Name ……

B.A. DEGREE (CBCSS) EXAMINATION APRIL 2015
SECOND SEMESTER-COMPLEMENTARY COURSE(MATHEMATICS)
MAT2CELF – CALCULUS ,EXPONENTIAL AND LOGARITHMIC FUNCTIONS
(For B.A ECONOMICS)

Time : Three Hours **Maximum : 80 Marks**

PART A

Short Answer Questions

Answer ***ALL*** Questions. Each Question carries 1 Mark

1. Find $\lim_{x \to -12} \frac{x+12}{x^2-144}$
2. If y=mx+b , find $\frac{dy}{dx}$
3. Define Critical point for a function of one variable.
4. If $e^2 = 7.389$, find the value of $\log_e 7.389$
5. Convert into logarithmic function $2^{-2} = \frac{1}{4}$
6. What is $\lim_{n \to \alpha} (1+\frac{1}{n})^n$
7. Evaluate $\int_4^4 (3x^2 + 7x + 5)\, dx$.
8. If z=f(x,y) , what is $\lim_{\Delta x \to 0} \frac{f(x+\Delta x,y)-f(x,y)}{\Delta x}$
9. If $z = (4x^2 + 9y^3)^5$, find $\frac{\partial z}{\partial y}$
10. If $z = 9e^{4xy}$ find z_x.

PART B

Brief Answer Questions

Answer any ***Eight*** questions . Each question carries 2 Marks

PART C

Descriptive(Short Essay Questions)

Answer any ***Six*** questions . Each question carries 4 Marks

PART D

(Essay Type Questions)

Answer any ***Two*** questions . Each question carries 15 Marks