Gurudas College

Internal Assessment 2021

Sem-IV, Paper-CC4

ECOA

Time: 30 mins Total Marks: 10

GROUP A

Answer any **Four** Questions 1X 4= 4

1. Y=f(K,L) is an example of single variable function
   (i)Yes (ii) no (iii) it is not a function

2. $y_{t+1} - 5y_t = 1$ is a
   (i) Second order non-homogeneous difference equation
   (ii) First order homogeneous difference equation
   (iii) First order non-homogeneous difference equation
   (iv)None of the above

3. For the case of perfect substitutes u(x, y)=x+y, the MRS would be 1.
   (i) true (ii) false (iii) MRS would be zero

4. A firm's production function is homogenous of degree 1. It would satisfy
   (i) constant return to scale (ii) increasing return to scale (iii) decreasing return to scale

5. f(x,y,w) = $\frac{x}{y} + \frac{2w}{3x}$ is a homogenous function of
   (i) degree 0 (ii) degree 1 (iii) degree 4

P.T.O

Group B

3 X 2 = 6

Answer any **two** questions

6. Describe the time path of the difference equation $y_t = 2(-\frac{4}{5})^t + 9$ is

7. Find the marginal product function for Cobb-Douglas production function of their inputs

   $y = Ax_1^{\alpha} x_2^{\beta} x_3^{\gamma}$ where A>0, 0<α, ß, γ <1

8. Use the total differential to compute the slope of the level curve of the following function

$$f(x_1, x_2) = 2x_1 + 3x_2$$