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School of Liberal Education

Bachelor of Arts Honours in Economics

Mid Term Examination - May 2024

Duration : 90 Minutes

Max Marks : 50

Sem IV - K1UB404T - Mathematics for Economics-IGeneral Instructions*Answer to the specific question asked**Draw neat, labelled diagrams wherever necessary**Approved data hand books are allowed subject to verification by the Invigilator*

- 1) Explain what is Hetrogeneous function. K2 (2)
- 2) Describe conditional equation with relevent example. K1 (3)
- 3) Derive the equation of straight line. K2 (4)
- 4) Represent graphcally the following functions. K2 (6)
(I). $y= 16 +2x$
(II). $y=8 - 2x$
- 5) Describe Euler rule of homogenous function. K3 (8)
- 6) Write the equation in the form $y = mx + b$. It passes through (3, 5) and (2, - 1). K3 (9)
- 7) Descuss the economic application of homogenous function and how will we analyse degree of homogeneity in case of return to scale. Explain it with example. K4 (8)
- 8) Explain the properties of Hessian Matrix. Compute the Hessian of $f(x, y) = x^3 - 3xy - y^6$ at the point (1,2) K4 (12)

OR

- Discuss various properties of a determinant. Also explain the concepts of minor and cofactor. K4 (12)