

--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

School of Liberal Education

Bachelor of Arts Honours in Economics

Mid Term Examination - Nov 2023

Duration : 90 Minutes

Max Marks : 50

Sem III - K1UB302T - Basic MathematicsGeneral 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) Find the intersection of sets $X = \{a, b, c\}$ and $Y = \{b, c, d\}$. K2 (2)
- 2) Graph the linear equation $y = 2x - 3$. K1 (3)
- 3) Solve the equation $4(x - 2) = 24$ for x . K2 (4)
- 4) Simplify the expression $2(a + 3) - 5$ when $a = 7$. K2 (6)
- 5) Write a linear equation to represent the statement: "Twice a number increased by 5 is 15." K3 (6)
- 6) Define a limit in calculus and provide the notation used to represent it. K3 (9)
- 7) List a "linear equation" and give an example. K4 (8)

- 8) Graph and give the interval notation equivalent for $X < -1$, and $Y < 3$ K4 (12)

OR

Analyse the the quadratic equation $y = x^2 - 4x + 4$ and present it graphically. K4 (12)