

National University of Computer & Emerging Sciences MT-1003 Calculus and Analytical Geometry Fall 2023



Content for Sessional Exam - I

Contents/Topics	Exercises
Interval, Inequality, Relation and Functions, One-One and	Appendix E (Q23-44)
onto function.	Appendix F (Q17-36)
Vertical line test, Piecewise, Absolute value, Introduction to	0.1 (1-04, 7-10, 27,28)
functions, Domain and Range, Symmetry, Even/odd	0.2 (5-18, 27-34, 53-
function, Asymptote	63,66,67)
	0.4 (9 to 16)
Concepts of limit. Evaluation of limits. Continuity and	1.1 (1-16)
points of discontinuity. Types of discontinuity.	1.2 (1,3-32)
	1.5 (1-6,11-22, 29, 30,
	35, 36)
Rules and techniques of differentiation. Product and	2.3 (1-24, 41-47)
quotient rule. Derivative of trigonometric and logarithm	2.4 (1-24)
function,	2.5 (1-24)
Chain rule	2.6 (7-40)
Implicit differentiation.	2.7 (3-18,25-28)