Bangladesh Army University of Engineering & Technology (BAUET)

Department of Computer Science and Engineering

Second Year Fourth Semester (16th Batch), Summer-2024

Course Code: MATH - 2247

Course Title: Complex Variable and Laplace Transformation

Class Test-01

Full Marks: 15 **Time: 35 Minutes**

N.B: Answer all the questions and the figures shown in the right margin indicate full marks.

			Marks	CO	PO	BL	KP
Q.4	(a)	How do you indicate of absolute value of a complex number? Give one specific example of complex numbers in the engineering field. Evaluate the absolute value of a complex number defined by $\frac{5+5i^{3.(\text{last one digit of your ID})}}{3-4i^5}+\frac{20}{4+3i}$ if possible.	6	1	1	C1,C2,C5	Wk1
	(b)	By employing De-Moivre's theorem, evaluate the indicated roots of $\left(-3\sqrt{3}-3i\right)^{\frac{1}{3}}$ and locate them graphically.	5	1	1	C3,C5	Wk1
	(c)	Categorize and recommend graphically as the region in the z-plane represented by the following relation $\text{Re}\left(\frac{1}{z}\right)\geq\frac{1}{2}$.	4	1	1	C4,C5	Wk1