



III BRAC University

Department of Mathematics and Natural Sciences

Total Points: 15

 **Assignment-01**

Course Code: MAT215

Complex

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 **Section: 12**

 **Semester: FALL 2025**

 **Submission Date:** _____

Assigned by

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Question 1

Find all possible values of z such that

$$z^6 = 32\sqrt{3} - 32i$$

Locate them in the complex plane. Show that they are contained in a circle and find the radius of that circle. Also find the angular distance between two adjacent roots.

 **Solution:**

Question 2

Consider the equation

$$|z + 3i| + |z - 3i| = 11$$

Describe the above locus in the complex plane

 **Solution:**