



# **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: