

**King Fahd University of Petroleum and Minerals**  
**MATH-302**

**Quiz 5**

**Name:-**

**ID:-**

**Sec.:01**

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(1) Find all values of  $z$  satisfying  $\cos z = -3$ .

(2) Find the values of  $z$  where  $f(z) = |z|^2 - \bar{z}$  is differentiable.

**(3)** Check if the identity  $\text{Ln}(z_1 z_2) = \text{Ln}(z_1) + \text{Ln}(z_2)$  is true for  $z_1 = i$ ,  
 $z_2 = -1 + i$ .

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Quiz 5

Name:-

ID:-

Sec.:05

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(1) Find all values of  $z$  satisfying  $\sinh z = -i$ .

(2) Find the values of  $z$  where  $f(z) = |z|^2 - \bar{z}$  is differentiable.

(3) Check if the identity  $\text{Ln}(z_1 z_2) = \text{Ln}(z_1) + \text{Ln}(z_2)$  is true for  $z_1 = i$  and  $z_2 = -1 + i$ .