

King Fahd University of Petroleum and Minerals  
Department of Mathematics and Statistics  
Math-201 Semester-111 QUIZ II

NAME:

S.No.

ID:

Maximum Marks: 15

Section:06

Time Allowed: 25 minutes

(1) Find the area of the region that lies inside the curve  $r = 3\cos\theta$  and outside the curve  $r = 1 + \cos\theta$ .

(2) Sketch the curve with polar equation  $r = 2\cos(\frac{\theta}{2})$   $\frac{\pi}{2} \leq \theta \leq 2\pi$ .