DHOFAR UNIVERSITY
FOUNDATION PROGRAM | MATH UNIT
FPML 100, FPMS 100, FPMA 100
Math for Law, SW, Education and Arabic
Model Paper for Final EXAM
Term (2023-24)

Student Name										
Student ID										**Date:**
Section										**Duration: 1 hour 30 minutes**
Teachers	**Muhammad Siddique and Dr.Wajdi Hamza Alredany**									

Instructions:

1) The exam has 4 main questions with a scratch sheet.
2) Please turn off your mobile phone.
3) Use only a blue or black pen.
4) No talking, passing objects or looking in the direction of another student's paper. Any of these behaviors will be considered cheating.

Dhofar University's Academic Integrity Policy (Policy No. DU-AC-007) is intended to foster hard work, honesty, and responsibility. It strictly prohibits all forms of academic misconduct, including cheating and collusion, plagiarism, and impersonation.

By reading this pledge, I affirm that I have upheld the AIP and that my submitted work is my own and therefore free of any form of cheating.

تهدف سياسة النزاهة الأكاديمية بجامعة ظفار (السياسة رقمDU-AC-007) إلى تعزيز العمل الجاد والأمانة والمسؤولية و تحظر تمامًا جميع الأشكال التي تخالف النزاهة الأكاديمية ، بما في ذلك الغش والتواطؤ والسرقة الأدبية والإنتحال.

من خلال قراءتي لهذا التعهد أؤكد أنني ملتزم بسياسة النزاهة الأكاديمية و أن عملي هذا هو خاص بي ويخلو من أي شكل من أشكال الغش.

Student's Signature: _____

Marking Grid

Question	Question 1 MCQ's (out of 15)	Question 2 (out of 5)	Question 3 (out of 12)	Question 4 (out of 8)	Total / 40 marks
Marks obtained					

Marker's name:		Moderator's name:	
Marker's signature:		Moderator's signature:	
Date:		Date:	

Question 1: MULTIPLE CHOICE. Circle the correct answer. (15 Marks)

1)	Find radius of circle $(x+1)^2+(y-12)^2=4$. (a) radius = 4 (b) radius = -4 (c) radius = 2 (d) radius = 12
2)	Find radius of the circle $9(x-5)^2+9(y+1)^2=81$ (a) radius = 1 (b) radius = 4 (c) radius = 3 (d) radius = 9
3)	Find center of circle $2(x+9)^2+2(y-6)^2=32$. (a) $(-9,6)$ (b) $(9,-6)$ (c) $(9,6)$ (d) $(-9,-6)$
4)	Cos 0 = (a) 0 (b) 1 (c) -1 (d) undefined
5)	$\frac{5\pi}{6}$ in degree = …… (a) 300^0 (b) 135^0 (c) 120^0 (d) 150^0
6)	90^0 in radian = ……. (a) $\frac{\pi}{2}$ (b) $\frac{3\pi}{2}$ (c) $\frac{5\pi}{6}$ (d) $\frac{\pi}{6}$
7)	The angle  is : (a) Acute angle (b) Obtuse angle (c) Right angle (d) Straight angle
8)	The angle $\theta = 141^0$ is (a) Acute angle (b) Obtuse angle (c) Right angle (d) Straight angle
9)	Sin 30^0 = (a) - 0.5 (b) 0.5 (c) -1 (d) undefined
10)	Tan 270^0 = (a) –1 (b) 0 (c) 1 (d) undefined

Question 2: **(5 Marks)**

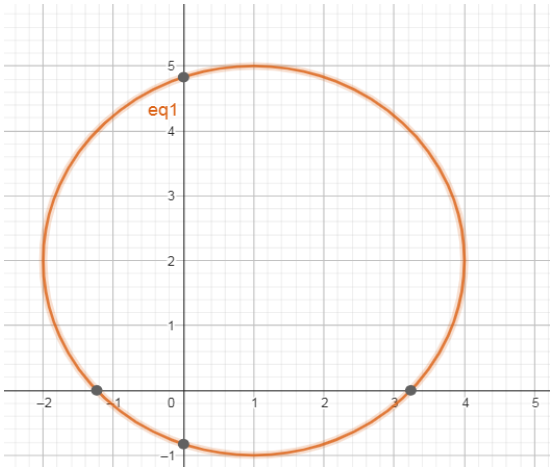
Find the equation of a line which passes through (- 1, 8) and has slope 2.

Question 3: **(12 Marks)**

1) For the given circle, find the following (5 Marks)

a) Center (C) (1 Marks)

b) Radius (R) (1 Marks)



c) Write the equation of the given circle. (3 Marks)

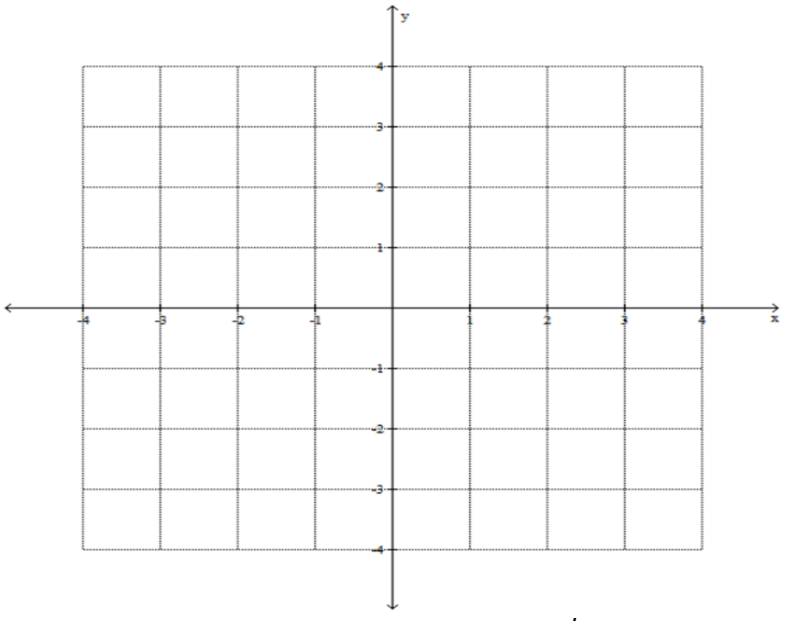
(b) Find equation of circle centered at $(-4, 10)$ with radius 8. (2 Marks)

(c) For the circle $(x-2)^2 + (y+1)^2 = 4$, find (5 Marks)

a) Center (1 Mark)

b) Radius (1 Mark)

c) Graph the circle (3Marks)



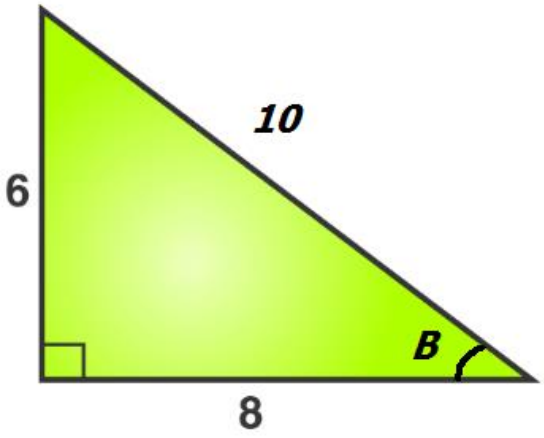
Question 4: **(8 marks)**

1) For the given right triangle, evaluate the following: (3 Marks)

a) Sin B = (1 Mark)

b) Cos B = (1 Mark)

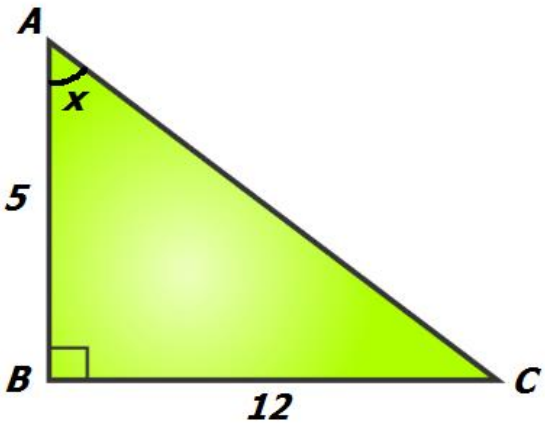
c) Tan B = (1 Mark)



2) Find the following (5 Marks)

a) Find angle X (2 Marks)

b) Find the side AC (3 Marks)



End of Model Paper Final Exam

SCRATCH SHEET

Name: _____

Note:

1. This scratch sheet will not be marked.
2. Do not detach it from the rest of exam papers.