



DHOFAR UNIVERSITY
FOUNDATION PROGRAM | MATH UNIT
FPMC 101A – Math Level 1
Midterm EXAM - Model Paper
Term (2023-24)

Student Name							
Student ID							Date:
Section							Duration: 1 hour 30 minutes
Instructor							

Instructions:

- 1) The exam has 5 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 رقم DU-AC-007) إلى تعزيز العمل الجاد والأمانة والمسؤولية وتحظر تمامًا جميع الأشكال التي تخالف النزاهة الأكاديمية، بما في ذلك الغش والتواطؤ والسرقة الأدبية والانتحال.

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

Student's Signature: _____

Marking Grid

Question	Question 1 MCQ's (out of 8)	Question 2 (out of 5)	Question 3 (out of 3)	Question 4 (out of 8)	Question 5 (out of 6)	Total / 30 marks
Marks obtained						

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

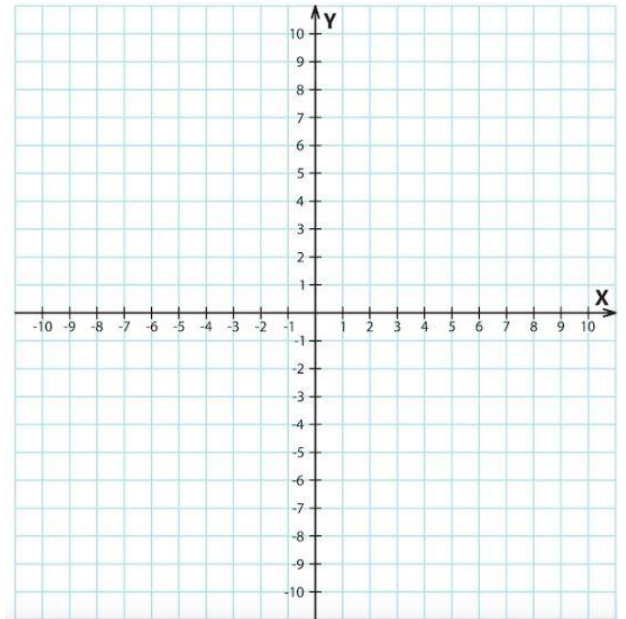
Question 1: MULTIPLE CHOICE. Circle the correct answer.**(8 Marks)**

1.	x- intercept for the line $x - y = 1$ is: a) $(1,0)$ b) $(0,1)$ c) $(0,-1)$ d) $(-1,0)$
2.	The slope of a line $y = 19$ is: a) 0 b) -19 c) 19 d) Undefined
3.	The equation of the line that goes through the point (1, 1) and has a slope of 5 is: a) $y = -5x$ b) $y = 5x$ c) $y = 5x + 4$ d) $y = 5x - 4$
4.	The slope of a line that is perpendicular to the line $y = 3x + 7$ is : a) $\frac{-1}{3}$ b) $\frac{3}{7}$ c) 7 d) 3
5.	Two lines are perpendicular . If $m_2 = 2$, then m_1 is. a) $m_1 = 2$ b) $m_1 = -2$ c) $m_1 = -\frac{1}{2}$ d) $m_1 = 0$
6.	Simplify: $\left(-\frac{7y}{5x}\right)^0$ a) $-\frac{7y}{5x}$ b) 0 c) undefined d) 1
7.	Simplify: $(7^2)^3$ a) 7 b) 7^5 c) 7^6 d) $-\frac{1}{7}$
8.	Simplify: $(4^{-1})(4^2)$ a) 16 b) $\frac{1}{16}$ c) $\frac{1}{4}$ d) 4

Question 2:**(5 Marks)**

Draw the graph for the linear inequality :

$$5x + 5y \geq 20$$

**Question 3:****(3 Marks)**

Rationalize the denominator:

$$\frac{3}{\sqrt{5} - 2}$$

Question 4:**(8 Marks)**

a) Find the slope and the equation of a line that passes through $(1, 1)$ and $(5, 5)$.

1. The slope $(m) =$ **(2 Marks)**

2. The equation **(3 Marks)**

b) Find the equation of a line that passing through $(1, 2)$ and the slope is 8. **(3 Marks)**

Question 5: **(6 Marks)**

Simplify the following with positive integers:

a) $(-2x^1y^2)(5x^7y^4) =$

(2 Marks)

b) $\frac{36x^8y^8}{18x^2y^2} =$

(4 Marks)

End of Midterm Exam Model Paper

SCRATCH SHEET

Name: _____

Note:

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