



**DHOFAR UNIVERSITY**  
**FOUNDATION PROGRAM | MATH UNIT**  
**FPM 100 – Math Pre Level**  
**Midterm EXAM (Model Paper)**  
**Term (2023-24)**

<b>Student Name</b>									
<b>Student ID</b>									<b>Date:</b>
<b>Section</b>								<b>Duration: 1 hour 15 minutes</b>	
<b>Instructor</b>									

**Instructions:**

- 1) The exam has 3 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 و تحظر 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 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 10)	Question 2 (out of 10)	Question 3 (out of 10)	Total / 30 marks
Marks obtained				

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

**Question 1:** Circle the correct answer. **(10 Marks)**

1. Find the sum, and write in the lowest term. $\frac{5}{15} + \frac{10}{15}$
A. 15                                      B. 1                                      C. $\frac{1}{15}$ D. $\frac{10}{3}$
2. Find the product, and write in the lowest term. $\left(\frac{5}{2}\right)\left(\frac{2}{3}\right)$
A. $\frac{3}{10}$ B. $\frac{3}{5}$ C. $\frac{5}{3}$ D. $\frac{10}{3}$
3. Simplify, and write in the lowest term. $\frac{3}{5} \div \frac{3}{5}$
A. 1                                      B. $\frac{9}{5}$ C. $\frac{9}{25}$ D. $\frac{25}{9}$
4. If $a, b \in \mathbb{R}$ and $(a)(b) = (b)(a)$ , this property of real numbers is called:
A. Distributive                              B. Commutative                              C. Associative                              D. Identity
5. What property of real numbers is used? $2 + (3 + x) = (2 + 3) + x$
A. Commutative                              B. Associative                              C. Identity                              D. Distributive
6. Identify the type and degree of the polynomial: $10x^3y$
A. Monomial,degree:4                      B. Monomial,degree:3                      C. Trinomial,degree:4                      D. Binomial,degree:3
7. Simplify: $10x - 4y - 3x - 2y$
A. $30x + 8y$ B. $30x - 8y$ C. $7x + 6y$ D. $7x - 6y$
8. Find the product: $(x)(x - y)$
A. $x^2 + y$ B. $x^2 + xy$ C. $x^2 - xy$ D. $x^2 - y$
9. Factor out the common factor: $4m + 8m^2$
A. $m(m + 8)$ B. $4m(1 + 2m)$ C. $m(4m + 2)$ D. $4m(1 + 8m)$
10. Factor the expression: $x^2 - 1$
A. $(x^2 + 1)(x^2 - 1)$ B. $(x + 1)(x + 1)$ C. $(x - 1)(x - 1)$ D. $(x + 1)(x - 1)$

**Question 2:** Simplify each expression. **(10 Marks)**

A. $(8x^4 + 3y - 4x^3) + (2x^4 + 7y + 2x^3)$	(2 marks)
B. $(8u^2 + 3u - 6) - (3u^2 + 7u - 2)$	(2 marks)
C. $(m - 2)(5m + 3)$	(3 marks)
D. $x(3x^3 - 4x^2 + 8x)$	(3 marks)

**Question 3:** Factor each expression. **(10 Marks)**

A. <b>Factor out the common factor:</b> $y^5 - 8y^4 + 7xy^2$	(3 marks)
B. <b>Factor by grouping:</b> $x^2 - 2x + x - 2$	(3 marks)
C. <b>Factor by using difference of squares:</b> $m^2x^2 - 9$	(2 marks)
D. <b>Factor trinomial:</b> $y^2 - 13y + 30$	(2 marks)

**End of model paper midterm exam**

SCRATCH SHEET

Name: \_\_\_\_\_

Note:

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