

**King Fahd University of Petroleum and Minerals**  
**Math001- Quiz# 2 Form (A)**

Name: \_\_\_\_\_ ID#: \_\_\_\_\_ Sec#: \_\_\_\_\_

1. Simplify  $\left(\frac{(-2y)^0 y^{-2} (5y^2)^{-3}}{y^{-3} (5^{-1} y^5)^{-1}}\right)^{-\frac{1}{4}}$  where  $y > 0$ .

2. Rationalize the denominator of  $\frac{\sqrt{3}+\sqrt{2}}{2\sqrt{3}-3\sqrt{2}}$  and write the result in the simplest form.

3. Find the value of  $\frac{-3^2+6\div\sqrt{(-3)^2+2}}{2-\sqrt[5]{(-3)^5}} + \sqrt[5]{0.00032}$ .

4. Find the coefficient of  $a^2b^3$  in the product  $(a-b)^2(3a-b)^3$ .

5. Let  $P(x) = 3x^4 - 6x^2 + 2x^5 + 7x^3 - x + 10$ . Then only one of the following is TRUE:

- (a)  $P(x) + \frac{1}{x}$  is a polynomial.
- (b) The degree of  $P(x)$  is 6.
- (c) There are 5 terms in  $P(x)$ .
- (d)  $P(x)$  is in the standard form.
- (e) The leading coefficient of  $P(x)$  is equal to 2.