School of Engineering
Chemical Engineering Department
Computer Applications in Chemical Engineering.

CHE-0965201-Sun | **Student Name:** Answer sheet
2ed 2018/2019 | **Student ID:** _____
Quiz 1 - F1 | **Quiz Mark [10]:** _____
Time Limit: 10 Minutes | Date: **10/2/2019**

1. (8 points) Fill the circle for the correct answers of the following questions ?

   1. Which of the following represent an wrong MATLAB command?
      - ○ a=sin(5*π)/2;
      - ○ 5+3*12-2
      - ● cosd(60)=b+c
      - ○ z=3+2*5

   2. The command that is used to clear the command window in MATLAB is:
      - ○ clear
      - ○ quit
      - ○ who
      - ● clc

   3. Which of the following symbol used to separate the elements of an array
      - ○ :
      - ● ,
      - ○ ;
      - ○ ...

   4. The value of variable (z) after apply the following command is:
      $>> i = 5;$
      $>> z = 3 + 5 * 1i$
      - ● 3+5i
      - ○ 28
      - ○ 5i
      - ○ Error message.

   5. The command that is used to show the results of calculation in scientific format with 15 decimals is:
      - ○ format short e
      - ○ format long
      - ● format long e
      - ○ format rat

6. The value of variable (y) after apply the following command is:
   >> format bank
   >> $y = 3 + 5i$
   - ○ 3+5i
   - ● 3
   - ○ 5i
   - ○ Error message.

7. The value of variable (z) after apply the following command is:
   >> format short
   >> $y = 13.567863567$;
   >> $z = round(y, 6)$
   - ○ 13
   - ● 13.5679
   - ○ 13.567864
   - ○ Error message.

8. One of the following is valid variable name in MATLAB:
   - ○ e$5
   - ○ 5e
   - ● e_5
   - ○ 1e5.

1.5

2. (1 point) Write the MATLAB code that used to calculate the following Mathematical expression [Just write the Command]

$$e^{(-2.1)^3} + 3.47log(14) + \sqrt[4]{287} + cos(60^o)$$

exp(-2.1^3) + 3.47*log10(14) + (284)^(1/4) + cosd(60)

or.

cos(60*pi/180)

3. (1 point) Consider the MATLAB is used to calculate the following expression

1.5

$$\frac{27^2}{4} + \frac{319^{4/5}}{5} + 60(14)^{-3}$$

Show the order of precedence and write the final answer

(1) 27^2 = 729 , 319^(4/5) = 100.7007 , (3) 14^(-3) = 3.6443 X 10^-4

(2)

(4) 729/4 + (5) 100.7007/5 + (6) 60 * 3.6443 X 10^-4

182.25 + 20.1401 + 0.0219 = 202.4120

(7)

202.39 + 0.029 = 202.412

(7)

School of Engineering
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CHE-0965201-Sun
2^{ed} 2018/2019
Quiz 1 - F2
Time Limit: 10 Minutes

Student Name: Answer sheet
Student ID: _____
Quiz Mark [10]: _____
Date: **10/2/2019**

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1. (8 points) Fill the circle for the correct answers of the following questions ?

   1. The value of variable (y) after apply the following command is:
      >> format bank
      >> $y = 5 + 7i$
      - (●) 5
      - ( ) 7i
      - ( ) 5+7i
      - ( ) Error message.

   2. The value of variable (z) after apply the following command is:
      >> format long
      >> $y = 12.567863567$;
      >> z=round(y,6)
      - ( ) 12
      - ( ) 12.5679
      - (●) 12.567864
      - ( ) Error message.

   3. One of the following is valid variable name in MATLAB:
      - ( ) $i\$5$
      - ( ) 5i
      - (●) i_5
      - ( ) 1i.

   4. Which of the following represent an wrong MATLAB command?
      - ( ) a=sin(5*π)/2;
      - (●) 3+2*5=z
      - ( ) b=tand(60)
      - ( ) 5+3*12-2

   5. The command that is used to remover all variables work space in MATLAB is:
      - ( ) whos
      - ( ) quit
      - (●) clear
      - ( ) clc

6. Which of the following symbol used to separate the rows of an array
   - ○ :
   - ○ ,
   - ● ;
   - ○ ...

7. The value of variable (z) after apply the following command is:
   $>> j = 1;$
   $>> z = 3 + 5 * j$
   - ○ 3+i
   - ● 8
   - ○ 3
   - ○ Error message.

8. The command that is used to show the results of calculation in scientific format with 15 decimals is:
   - ○ format short e
   - ○ format long
   - ● format long e
   - ○ format rat

1.5

2. (1 point) Consider the MATLAB is used to calculate the following expression

$$\frac{15^3}{3} + \frac{219^{1/3}}{6} + 10(12)^{-2}$$

Show the order of precedence and write the final answer

① 15^3 = 3375, ② 219^(1/3) = 6.0277, ③ 12^-2 = 0.0069

④ 3375/3 + ⑤ 6.0277/6 + ⑥ 10 x 0.0069

⑦ 1125 + 1.0046 + 0.069 =

⑧ 1126.0046 + 0.069 = 1126.0736

1.5

3. (1 point) Write the MATLAB code that used to calculate the following Mathematical expression [Just write the Command]

$$e^{(-2.5)^2} + 1.57log_{10}(10) + \sqrt[3]{100} + tan(3\pi)$$

exp(-2.5^2) + 1.57 log10(10) + 100^(1/3) + tan(3*pi)