

Unit 2 - Prerequisite Assignment

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Assignment 0

The due date for submitting this assignment has passed. **Due on 2020-01-27, 23:59 IST.**
 As per our records you have not submitted this assignment.

Note : This assignment is only for practice purpose and it will not be counted towards the Final score

1) What is the command used to display the value of a variable x in MATLAB 1 point

displayx
 vardisp('x')
 disp x
 disp(x)

No, the answer is incorrect.
 Score: 0
 Accepted Answers:
 disp(x)

2) If the coding strand of the DNA is 5'- ATG CCC ACG CTC-3', what should be the sequence of the corresponding RNA strand? 1 point

5'-AUG CCC ACG CUC-3'
 5'-UAC GGG UGC GAG-3'
 5'-TAC GGG TGC GAC-3'
 5'-GAG CGU GGG CAU-3'

No, the answer is incorrect.
 Score: 0
 Accepted Answers:
 5'-AUG CCC ACG CUC-3'

3) Which of the following is an invalid variable name in MATLAB? 1 point

x6
 last
 6x
 z

No, the answer is incorrect.
 Score: 0
 Accepted Answers:
 6x

4) What would be the output of the following code? 1 point

```
a = [1 0 2];
b = [3 0 7];
c=a.*b
```

[3 0 14]
 [2 0 21]
 [14 0 3]
 [7 0 3]

No, the answer is incorrect.
 Score: 0
 Accepted Answers:
 [3 0 14]

5) What will be the output of the below pseudo - code? 1 point

```
for i = 1:4
    for j= 1:3
        k=i*j;
        disp(k)
    end
end
```

2 3 4 3 4 5 4 5 6 5 6 7
 1 1 1 2 4 8 3 9 27 4 16 64
 1 2 3 1 2 3 4 5 6 4 5 6
 1 2 3 2 4 6 3 6 9 4 8 12

No, the answer is incorrect.
 Score: 0
 Accepted Answers:
 1 2 3 2 4 6 3 6 9 4 8 12

6) What would be the output of the following code? 1 point

```
A = [0 1 1 0];
B = 2
C = A + B
```

[1 2 4 5]
 [2 3 3 2]
 [3 2 3 2]
 [3 2 2 3]

No, the answer is incorrect.
 Score: 0
 Accepted Answers:
 [2 3 3 2]

7) What is the output for the below pseudo-code? 1 point

```
p = 10;
i = 5;
while p > i;
    i = i+1;
    print(i)
end
```

5
 6
 7
 8
 9
 10
 5
 6
 7
 8
 9
 10
 5
 6
 7
 8
 9
 10

No, the answer is incorrect.
 Score: 0
 Accepted Answers:
 6
 7
 8
 9
 10

8) The following system of equations is expressed in matrix form: $Ac = b$ where 1 point

```
c = [x y z].
2x + y = 0
3y + z = 0
x + 2y + z = 0
```

The matrix A is:

$\begin{bmatrix} 2 & 1 & 0 \\ 0 & 3 & 1 \\ 1 & 2 & 1 \end{bmatrix}$
 $\begin{bmatrix} 2 & 3 & 1 \\ 1 & 1 & 2 \\ 0 & 0 & 1 \end{bmatrix}$
 $\begin{bmatrix} 2 & 0 & 1 \\ 3 & 0 & 1 \\ 1 & 2 & 1 \end{bmatrix}$
 $\begin{bmatrix} 2 & 1 & 0 \\ 3 & 1 & 0 \\ 1 & 2 & 1 \end{bmatrix}$

No, the answer is incorrect.
 Score: 0
 Accepted Answers:
 $\begin{bmatrix} 2 & 1 & 0 \\ 0 & 3 & 1 \\ 1 & 2 & 1 \end{bmatrix}$

9) What is the solution of the below differential equation? Given initial condition: 1 point

$x(t = 0) = A$

$$\frac{dx}{dt} = -\beta x$$

$x = Ae^{-\beta t}$
 $x = \beta e^{At}$
 $x = Ae^{\beta t}$
 $x = -Ae^{\beta t}$

No, the answer is incorrect.
 Score: 0
 Accepted Answers:
 $x = Ae^{-\beta t}$

10) The equation of the first order decomposition reaction is given by $A \rightarrow B + C$.The units of the first order rate constant k will be 1 point

s^{-1}
 $L mol^{-1} s^{-1}$
 $mol^{0.5} L^{-0.5} s^{-1}$
 $mol L^{-1} s^{-1}$

No, the answer is incorrect.
 Score: 0
 Accepted Answers:
 s^{-1}