Assignment 1

The due date for submitting this assignment has passed. As per our records you have not submitted this assignment.

1) The value of "x" after running the code given below is -----  

```r
x=95
if(x<90){
  x=x^3
}else if(x>100){
  x= x^5
}else {
  x= x^2
}
print(x)
```

- 9025
- True
- 9211
- 6325

No, the answer is incorrect.
Score: 0
Accepted Answers: 9025

2) The last value of sum and month printed is -----  

```r
n=5
sum=0
for(i in 1:11){
  sum=sum+(i^3)
  if (i %% 2 !=0)
    next
  print(c(month.abb[i+2],sum))
}
```

- "Oct" "2025"
- "Sep" "1296"
- "Nov" "3025"
3) Number of times the string "Thank you" will be printed when the below code is executed is----

```r
n=25
sum=1
for (i in 1:n) {
    sum=sum*n
    if(sum >50)
    {
        print("Welcome")
    }
    else
    {
        print("Thank you")
    }
}
```

No, the answer is incorrect.
Score: 0
Accepted Answers: "Dec" "3025"

4) In the R code given below, the value of "i" at which the loop breaks is ---

```r
n=16
x = seq(1,n,2)
for (i in x) {
    if (i == 5)
    {
        print(i)
        break
    }
}
```

No, the answer is incorrect.
Score: 0
Accepted Answers: 5

5) The value(s) of "y" at the end of the program given below is--

```r
x1=matrix(10:18,3,3)
x2=matrix(11:19,3,3)
m =cbind(apply(x1,1,min),apply(x2,1,max))
print(m)
y =apply(m,2,mean)
print(y)
```

No, the answer is incorrect.
Score: 0
Accepted Answers: 11 18

1 point

1 point

1 point
6) What will be the output of the code given below

```r
x = c(3:8)
y = c(2, 4, 5)
x * y
```

- 13.5 14.5 15.5
- 2 12

No, the answer is incorrect.
Score: 0
Accepted Answers: 11 18

7) The output displayed on running the code given below is

```r
runif(100)
```

- Random numbers between -1 and 1
- 100 random real numbers
- Generates 100 uniform random numbers between 0 and 1
- None of the above

No, the answer is incorrect.
Score: 0
Accepted Answers: Generates 100 uniform random numbers between 0 and 1

8) The data structures in R on which binary operators can be applied

- Scalar
- Vector
- Matrices
- All the above

No, the answer is incorrect.
Score: 0
Accepted Answers: All the above

9) Consider a list defined as below:

```r
mylist = list("Ram", "Harish", "Pradeep", c("Python", "Java", "R"), "25", "90", "1"
```

Choose the correct command to access the element "R"

- `mylist[[2]][2]`
- `mylist[[4]][3]`
- `mylist[[3]][1]`
- None of the above

No, the answer is incorrect.
Score: 0
Accepted Answers: `mylist[[4]][3]`
10) Given the following line of code to generate matrix ‘y’, how would you subset the third row? 1 point

\[ y \leftarrow \text{matrix}(nrow=3, ncol=3, 1:9) \]

- \( y[3,] \)
- \( y[3] \)
- \( y[3,2] \)
- \( y(3,) \)

No, the answer is incorrect.
Score: 0
Accepted Answers:
\( y[3,] \)

11) The correct command to build a matrix with numbers from 1 to 12, arranged row wise of size 3x4 and name it as “A” is ---- 1 point

- \( A = \text{matrix}(c(1:12), \text{nrow} = 3, \text{ncol} = 4, \text{byrow} = F) \)
- \( A = \text{matrix}(c(1:12), \text{nrow} = 3, \text{ncol} = 4, \text{byrow} = T) \)
- \( A = \text{matrix}(c(1:12), \text{nrow} = 4, \text{ncol} = 3, \text{byrow} = T) \)
- \( A = \text{matrix}(c(1:12), \text{nrow} = 1, \text{ncol} = 9, \text{byrow} = T) \)

No, the answer is incorrect.
Score: 0
Accepted Answers:
\( A = \text{matrix}(c(1:12), \text{nrow} = 3, \text{ncol} = 4, \text{byrow} = T) \)

\[
\begin{bmatrix}
52 & 42 & 53 & 21 & 63 \\
14 & 26 & 77 & 32 & 12 \\
13 & 18 & 23 & 28 & 33 \\
14 & 19 & 24 & 29 & 34 \\
15 & 20 & 25 & 30 & 35
\end{bmatrix}
\]

Using the matrix, \( a = \) answer the questions from 12 to 16.

12) What is the output for the command “a[2:3]” 1 point

- \( 26 \ 77 \ 32 \ 12 \)
- \( 14 \ 26 \ 77 \ 32 \ 12 \)
- \( 13 \ 18 \ 23 \ 28 \ 33 \)
- \( 52 \ 42 \ 63 \)
- \( 14 \ 13 \)

No, the answer is incorrect.
Score: 0
Accepted Answers:
\( 14 \ 13 \)

13) The expected output when the command “a[3,4]” is executed is 1 point

- 56
- 32
- 33
- 28

No, the answer is incorrect.
Score: 0
Accepted Answers:
\( 28 \)

14) The command to exclude the elements of 3rd row and select the rest of matrix is 1 point

- \( a[-3,] \)
- \( a[3,1:5] \)
- \( a[3,] \)
15) The command to extract the diagonal elements of matrix "a"  
- `diag(a)`  
- `diagonal(x=a)`  
- `diag(x = a, nrow = 5, ncol = 5)`  
- All the above  

No, the answer is incorrect.  
Score: 0  
Accepted Answers:  
- `diag(a)`

16) The command to check if "a" is an object of matrix in R  
- `is.matrix(a)`  
- `as.matrix(a)`  
- `is.matrix([a])`  
- `as.mat(a)`

No, the answer is incorrect.  
Score: 0  
Accepted Answers:  
- `is.matrix(a)`

17) User function that allows you to insert debugging code into a function to a specific place  
- `debug()`  
- `trace()`  
- `recover()`  
- None of the above

No, the answer is incorrect.  
Score: 0  
Accepted Answers:  
- `trace()`

Create a new data frame with the following variables.

```
a = data.frame(x1= c("A","B","C"), x2=1:3)
b = data.frame(x1= c("A","B","D"), x2=c("Yes","No","Yes"))
```

Answer the questions (18 to 20) based on the data frame created above.

18) The command to join data frame "b" to "a" by x1 is ---  
- `left_join(a,b, by='x1')`  
- `left_join(b,a, by='x1')`  
- `left_join(by='x1', a,b)`  
- `left_join(by='x2', b,a)`

No, the answer is incorrect.  
Score: 0  
Accepted Answers:  
- `left_join(a,b, by='x1')`

19) The command to join data frame "a" to "b" by x1 is ---  
- `right_join(b,a, by='x2')`
right_join(a, b, by='x1')
right_join(by='x1', a, b)
right.join(by='x1', b, a)

No, the answer is incorrect.
Score: 0
Accepted Answers:
right_join(a, b, by='x1')

20) The syntax to set the working directory in "R studio" is ---

getwd("file path")
wd("file path")
currentwd("file path")
setwd("file path")

No, the answer is incorrect.
Score: 0
Accepted Answers:
setwd("file path")