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NPTEL (https://swayam.gov.in/explorer?ncCode=NPTEL) » Data Science for Engineers (course)

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Course outline

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🔵 Data science for engineers Course philosophy and expectation (unit? unit=21&lesson=22)

🔵 Introduction to R (unit?

Week 1 : Assignment 1

The due date for submitting this assignment has passed.

Due on 2024-08-07, 23:59 IST.

Assignment submitted on 2024-08-07, 22:22 IST

1) Which of the following variable names are $\mathrm{INVALID}$ in R? **1 point**

☑ 1_variable

☐ variable_1

☐ _variable

☑ variable@

Partially Correct.
Score: 0.67
Accepted Answers:
1_variable
_variable
variable@

2) The function $\mathrm{ls}()$ in R will **1 point**

◯ set a new working directory path

◉ list all objects in our working environment

◯ display the path to our working directory

◯ None of the above

Yes, the answer is correct.
Score: 1

Accepted Answers:
list all objects in our working environment

Consider the following code snippet. Based on this, answer questions 3 and 4.

```
1   ID = c(1, 2, 3, 4)
2
3   Patient_name = c("Ram", "Shyam", "Nandini", "Maya")
4
5   num.patient = 4
6
7   patient_list = list(num.patient, ID, Patient_name)
8
```

3) Which of the following command is used to access the value "Shyam"? **1 point**

- ○ print(patient_list[3][2])
- ○ print(patient_list[[3]][1])
- ◉ print(patient_list[[3]][2])
- ○ print(patient_list[[2]][2])

Yes, the answer is correct.
Score: 1

Accepted Answers:
print(patient_list[[3]][2])

4) The output of the code given below is **1 point**

```
for (i in patient_list[1]){
    for (j in i){
        print(j)
    }
}
```

- ○
  ```
  [1] "Ram"
  [1] "Shyam"
  [1] "Nandini"
  [1] "Maya"
  ```

- ◉
  ```
  [1] 4
  ```

○ Code will throw an error.

Yes, the answer is correct.
Score: 1

Accepted Answers:

5) What is the output of following code?   *1 point*

```
1  x = 10 + 5 %% 3
2
3  print(typeof(x))
4
```
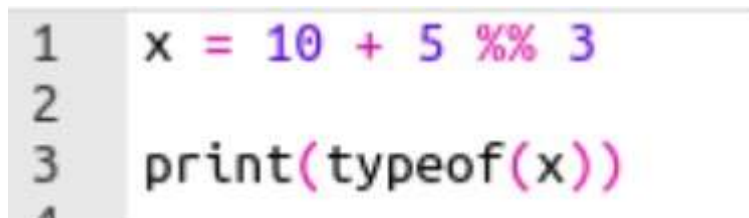
◉ double

○ integer

○ list

○ None of the above

Yes, the answer is correct.
Score: 1

Accepted Answers:
double

6) State whether the given statement is True or False.   *1 point*
The library reshape2 is based around two key functions named **melt** and **cast**.

◉ True

○ False

Yes, the answer is correct.
Score: 1

Accepted Answers:
True

7) What is the output of following code?   *1 point*

```
A = matrix(c(9:1), 3, 3)



print(A[3, 2])
```

- ⚪ 6
- 🔘 4
- ⚪ 2
- ⚪ 8

Yes, the answer is correct.
Score: 1
Accepted Answers:
4

Create the data frame using the code given below and answer questions 8 and 9.

student_data = data.frame(student_id=c(1:4),
student_name=c('Ram','Harish','Pradeep','Rajesh'))

8) Choose the correct command to add a column named **student dept** to the   *1 point*
dataframe **student data**.

- ☐ student_datastudent dept=c("Commerce", "Biology", "English", "Tamil")
- ☑ student_data["student dept"]= c("Commerce","Biology", "English","Tamil")
- ☐ student_dept= student data[c("Commerce","Biology","English","Tamil")]
- ☐ None of the above

Partially Correct.
Score: 0.5
Accepted Answers:
student_datastudent dept=c("Commerce", "Biology", "English", "Tamil")
student_data["student dept"]= c("Commerce","Biology", "English","Tamil")

9) Choose the correct command to access the element **Tamil** in the dataframe   *1 point*
student_data.

- ⚪ student_data[[4]]
- ⚪ student_data[[4]][3]
- 🔘 student_data[[3]][4]
- ⚪ None of the above

Yes, the answer is correct.
Score: 1
Accepted Answers:
student_data[[3]][4]

10) The command to check if a value is of numeric data type is _____ .   *1 point*

○ typeof()

⦿ is.numeric()

○ as.numeric()

○ None of the above

Yes, the answer is correct.
Score: 1

Accepted Answers:
is.numeric()