X

Week 1: Assignment 1

Your last recorded submission was on 2021-07-22, 14:00 IST **Due date: 2021-08-11, 23:59 IST.**

1) Choose the variable name that is invalid in R. ***1 point***

- data.1 = 10
- data1 = 10
- 1data = 10
- data_1 =10

2) The command to access help in R Studio is— ***1 point***

- ? topic
- help(topic)
- RSiteSearch('topic')
- help.stand(topic)

3) In the R code given below, the value of "i" at which the loop breaks is_____ ***1 point***

```
n=100
sum=0
for(i in seq(1,n,3)){
 sum=sum+i
 print(c(i,sum))
 if(sum>15)
  break
}
```

- 2
- 9
- 10
- 8

4) The library that supports right _join () function in R is_____ ***1 point***

- dplyr
- caret
- CRAN
- ggplot2

5) The value of sum and month when i = 9 is____ ***1 point***

```
n=5
sum=0
for(i in 1:11){
 sum=sum+(i+2)
 print(c(month.abb[i+1],sum))
}
```

- "May" "18"
- "Sep" "52"
- "Oct" "63"

"Nov" "75"

6) Table 1 provides the scores of the students in three subjects. Create a data frame called students_scores out of Table 1. Which of the following options gives Table 2 as an output? ***1 point***

Table 1

Name	Mathematics	English	Science
Ram	85	80	79
Prabhu	70	79	96
Sita	90	73	95
Santosh	95	90	80
Lohith	80	93	87

Table 2

Name	Variable	Value
Ram	Mathematics	85
Prabhu	Mathematics	70
Sita	Mathematics	90
Santosh	Mathematics	95
Lohith	Mathematics	80
Ram	English	80
Prabhu	English	79
Sita	English	73
Santosh	English	90
Lohith	English	93
Ram	Science	79
Prabhu	Science	96
Sita	Science	95
Santosh	Science	80
Lohith	Science	87

- melt(students_scores, id.vars = c("Name") , measure.vars =c("Mathematics", "English",”Science”))
- melt(students_scores, id.vars = c("Name","Mathematics") , measure.vars =c("English",”Science”))
- melt(students_scores, id.vars = c("Name") , measure.vars =c("Mathematics", "English"))
- dcast(students_scores, variable+Name ~ Science , value.var="value")

Create a data frame with given vectors below.
rank = c(1,2,3)
competitor = c("Usain","Tyson","Yohan")

mark = c(9.58, 9.69, 9.65)
Store the data frame in the variable named – “**athletics**”.

7) The command to add a new row to the data frame “athletics” with the following values passed to each vector? ***1 point***

rank= 4, **competitor**="Asafa", **mark**=9.72

- athletics=rbind(data.frame(rank= 4, competitor="Asafa", mark=9.72))
- athletics =rbind(data.frame(rank=4,competitor=”Asafa”,mark=9.72), athletic)
- athletics=rbind(athletics,data.frame(rank=4,competitor=”Asafa”,mark=9.72))
- None of the above

Answer question 8 based on the data frame created at the end of Q7.

8) The command to add a new column to the data frame “**athletics**” with vector “**nationality**” taking values “JAM”,”USA”,”JAM”,”JAM” is:- ***1 point***

- athletics=cbind(dataframe(nationality = c(“JAM”,”USA”,”JAM”,”JAM”), athletics))
- athletics=cbind(athletics,data.frame(nationality = c(“JAM”,”USA”,”JAM”,”JAM”)))
- athletics=cbind(athletics.data.frame(nationality = c(“JAM”,”USA”,”JAM”,”JAM”)))
- athletics=cbind(data.frame(nationality = c(“JAM”,”USA”,”JAM”,”JAM”)), athletics)

Answer question 9 based on the data frame created at the end of question 8

9) The correct way to extract all elements for which "**mark**" is less than 9.69 using the “**subset**” command is_____ ***1 point***

- subset(athletics, athletics$mark <9.69)
- subset[athletics, athletics$mark]
- subset(athletics $mark > 9.69,athletics)
- subset(athletics.mark >9.69)

10) Which of the following defined functions will return the output as 9.37? ***1 point***

```
func_multi= function(a,b,c)
{
  result=(a*b)*0.5+(a*c)**0.5
  return(result)
}
func_multi(4,5,6)
```

```
func_multi= function(a,b,c)
{
  result=(a*b)**0.5+(a*c)**0.5
  return(result)
}
func_multi(4,5,6)
```

```
func_multi= function(a,b,c)
{
  result=(a*b)**0.5+(a*c)**0.5
  return(result)
}
func_multi(4,5)
```

None of the above

You may submit any number of times before the due date. The final submission will be considered for grading.

Submit Answers