JECRC University, Jaipur
Assignment Unit III
MCA - III Semester
Subject: Statistical Computing using R
Subject Code: MCA206A
Date of Release:

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Part-A   **10X1=10**

Q.1 Point out the correct statement?

    A. Repeats a statement or group of statements while a given condition is true. It tests the condition before executing the loop body.
    B. it tests the condition at the end of the loop body.
    C. Both A and B
    D. None of the above

Q.2 In which statement terminates the loop statement and transfers execution to the statement immediately following the loop?

    A. goto
    B. switch
    C. break
    D. label

Q.3 How do you start writing a while loop in R?

    A) while x < y:
    B) x < y while
    C) while x < y
    D) while (x < y)

Q.4 What will be the output of the following R code? install.packages(c("devtools", "roxygen2"))

    a) Develops the tools
    b) Exits R studio
    c) Installs the given packages
    d) Nothing happens

Q.5 Function can return values--

    a) Single

    b) Multiple

    c) Both A and B

    d) None of Above

Q.6 What will be the output of the following—

S<- "Veg"

Switch (S, Veg="onion", fruit= "Mango", "Neither")

a) onion
b) Mango
c) Neither
d) Error

Q.7 Which function can be used to return the square root of a number?

a) sq
b) sqr
c) sqrt
d) sqroot

Q.8 How do you create a Function?

a) my_function <- function
b) my_function <- function()
c) my_function <- function[]
d) None of the above

Q.10 What will be the output of the following R function?

```
paste("Everybody", "is", "a" , "warrior")
```
a) Everybody is a warrior

b) "Everybody is a warrior"

c) Everybody", "is", "a" , "warrior

d) "Everybody", "is", "a" , "warrior"

Q.11 What will be the output of the following R function?

```
Sys.Date()
```
a) some date

b) today

c) tomorrow

d) yesterday

Q.12 Which of the following should be preferred for evaluation from list of alternatives?

a) subsett

b) eval

c) switch

d) set

Q.13 _____ function is used to watch for all available packages in library.

a) lib()

b) fun.lib()

c) libr()

d) library()

Q.14 Which apply function is used for simplify list.

a) apply

b) sapply

c) mapply

d) tapply

Q.15 A single element of a character vector is referred as _____

a) Character string

b)string

c) Data String

d)Raw data

Q.16 Dt = "01-12-2020" is in the form of character. What is the option to convert date into "MM-DD-YYYY

a) To_date (dt, "MM – DD – YYYY")

b) date(x = dt, format = "%m / %d / %Y")

c) Date (x = dt, format = "%m / %d / %Y")

d) none of the above

Q.17 Scripts will run on _____

a) Script Editors

b) Console

c) Terminal

d) GCC Compiler

Q.18 Which layer is not involved in ggplot2?

    A) data

    B) facets

    C) list

    D) theme

Q.19 How many packages approx. in R?

    a) 100+

    b) 1000+

    c) 10000+

    d) 100000+

Q.20 Which function is used for input operation?

a) scan

b) print

c) paste

d) cat

Part-B   **5X2=10**

Q.1 What is Function? Write any 3 math functions in R.

Q.2 Distinguish between for and while loop in R.

Q.3 Explain about Data Mining Packages.

Q.4 How can we plot bar chart?

Q.5 What are the Packages? Name some functions available in "dplyr" packages.

Part-C   **5X6=30**

Q.1 Write R code to return a complex object.

Q.2 Explain various apply methods in R.

Q.3 Write a for loop that iterates over the numbers 1 to 7 and prints the cube of each number using print()

Q.4. Distinguish between cat(), Paste() and Print().

Q.5. Write a R script to find out factorial of given number using recursion.

Part-D   **2X10=20**

Q.1 Write a script that will print 'Is a Matrix' if the variable x is a matrix, otherwise "Not a Matrix(a) Use a nested for loop that produces the following matrix, pre-allocate the matrix with NA values.

```
0   1   2   3   4
1   0   1   2   3
2   1   0   1   2
3   2   1   0   1
4   3   2   1   0
```
  (b) Write a program to implement Looping over list and vector.

Q.2. (a) What do you mean by Function Scoping. Distinguish Lexical and Dynamic scoping with example.

    (b) Explain structure of ggplot2 code with example.