# R Programming Questions and Answers – Control Structures-1

1. Which of the following is valid syntax for if else statement in R ?  
a)

**if**(<condition>) {

## do something

}

**else** {

## do something else

}

b)

**if**(<condition>) {

## do something

}

elseif {

## do something else

}

c)

**if**(<condition>) {

## do something

}

**else** **if** {

## do something else

}

d) All of the mentioned

2. Point out the correct statement :  
a) Blocks are evaluated until a new line is entered after the closing brace  
b) Single statements are evaluated when a new line is typed at the start of the syntactically complete statement  
c) The if/else statement conditionally evaluates two statements  
d) All of the mentioned

3. Which of the following syntax is correct for while loop ?  
a) while ( statement1 ) statement2  
b) while ( statement1 ) else statement2  
c) while ( statement1 ) do statement2  
d) All of the mentioned

4. Which of the following code generate a uniform random number ?  
a)

x <- **runif**(1, 0, 10)

**if**(x > 3) {

y <- 10

} **else** {

y <- 0

}

b)

x <- run(1, 0, 10)

**if**(x > 3) {

y <- 10

} **else** {

y <- 0

}

c)

x <- random(1, 0, 10)

**if**(x > 3) {

y <- 10

} **else** {

y <- 0

}

d) All of the mentioned

5. Point out the wrong statement :  
a) for will execute a loop a fixed number of times  
b) break will execute a loop while a condition is true  
c) if and else tests a condition and acting on it  
d) none of the mentioned

6. \_\_\_\_\_\_\_ is used to break the execution of a loop.  
a) next  
b) skip  
c) break  
d) all of the mentioned

7. Which of the following code generate a sequence of integers from 1 to 10 ?  
a)

> **for**(i **in** 1:9) {

+ **print**(i)

+ }

[1]

b)

> **for**(i **in** 0:9) {

+ **print**(i)

+ }

[1]

c)

> **for**(i **in** 1:10) {

+ **print**(i)

+ }

[1]

d) All of the mentioned

8. Which of the following statement can be used to explicitly control looping ?  
a) if  
b) while  
c) break  
d) all of the mentioned

9. Which of the following should be preferred for evaluation from list of alternatives ?  
a) subsett  
b) eval  
c) switch  
d) none of the mentioned

10.What will be the output of the following code ?

> x <- **c**("a", "b", "c", "d")

> **for**(i **in** 1:4) {

+ ## Print out each element of 'x'

+ **print**(x[i])

+ }

a)

[1] "a"

[1] "b"

[1] "c"

[1] "d"

b)

[1] "c"

[1] "b"

[1] "a"

[1] "d"

c)

[1] "d"

[1] "c"

[1] "b"

[1] "a"

d) All of the mentioned

# R Programming Questions and Answers – Control Structures-2

1. Which of the following code skips the first 20 iterations ?  
a)

**for**(i **in** 1:100) {

**if**(i <= 20) {

**next**

}

}

b)

**for**(i **in** 1:100) {

**if**(i <= 19) {

**next**

}

}

c)

**for**(i **in** 1:100) {

**if**(i <= 21) {

**next**

}

}

d) All of the mentioned

2. Point out the correct statement :  
a) The only way to exit a repeat loop is to call break  
b) Infinite loops should generally be avoided  
c) Control structures like if, while, and for allow you to control the flow of an R program  
d) All of the mentioned

3. \_\_\_\_\_\_\_\_\_ initiates an infinite loop right from the start.  
a) never  
b) repeat  
c) break  
d) set

4. Which of the following code snippet stops loop after 20 iterations ?  
a)

**for**(i **in** 1:100) {

**print**(i)

**if**(i > 20) {

**break**

}

}

b)

**for**(i **in** 1:100) {

**print**(i)

**if**(i > 19) {

**break**

}

}

c)

**for**(i **in** 1:100) {

**print**(i)

**if**(i < 20) {

**break**

}

}

d) All of the mentioned

5. Point out the wrong statement :  
a) Statements cannot be grouped together using braces ‘{’ and ‘}’  
b) Computation in R consists of sequentially evaluating statements  
c) Single statements are evaluated when a new line is typed at the end of the syntactically complete statement  
d) None of the mentioned

6. \_\_\_\_\_\_\_ is used to skip an iteration of a loop.  
a) next  
b) skip  
c) group  
d) all of the mentioned

7. Which of the following code can be used to avoid numeric problems such as taking the logarithm of a negative number ?  
a)

**if**( **any**(x < 0) ) y <- **log**(1+x) **else** y <- **log**(x)

b)

**if**( **any**(x <= 0) ) y <- **log**(1+x) **else** y <- **log**(x)

c)

**if**( **any**(x >= 0) ) y <- **log**(1+x) **else** y <- **log**(x)

d) All of the mentioned

8. R has \_\_\_\_\_\_\_\_ statements that provide explicit looping.  
a) two  
b) three  
c) four  
d) all of the mentioned

9. The syntax of the repeat loop is :  
a) rep statement  
b) repeat statement  
c) repeat else  
d) none of the mentioned

10. Which will be the output of following code ?

> x <- 3

> **switch**(x, 2+2, **mean**(1:10), **rnorm**(5))

a) 2.2903605 2.3271663 -0.7060073 1.3622045 -0.2892720  
b) 5.5  
c) NULL  
d) All of the mentioned

# R Programming Questions and Answers – Control Structures-3

1. What will be the output of the following code ?

> x <- 3

> **switch**(2, 2+2, **mean**(1:10), **rnorm**(5))

a) 5  
b) 5.5  
c) NULL  
d) All of the mentioned

2. Point out the correct statement :  
a) Statements, such as x<-1:10 or mean(y), can be separated by either a semi-colon or a new line  
b) Whenever the evaluator is presented with a syntactically complete statement that statement is evaluated and the value returned  
c) Computation in R consists of sequentially evaluating statements  
d) All of the mentioned

3.Which will be the output of following code ?

> x <- 3

> **switch**(6, 2+2, **mean**(1:10), **rnorm**(5))

a) 10  
b) 1  
c) NULL  
d) All of the mentioned

4. What will be the output of the following code ?

> y <- "fruit"

> **switch**(y, fruit = "banana", vegetable = "broccoli", "Neither")

a) “banana”  
b) “Neither”  
c) “broccoli”  
d) all of the mentioned

5. Point out the correct statement :  
a) The next statement causes an exit from the innermost loop that is currently being executed  
b) There are two statements that can be used to explicitly control looping  
c) The break statement immediately causes control to return to the start of the loop  
d) None of the mentioned

6. What will be the output of the following code ?

> centre <- **function**(x, type) {

+ **switch**(type,

+ **mean** = **mean**(x),

+ **median** = **median**(x),

+ trimmed = **mean**(x, trim = .1))

+ }

> x <- **rcauchy**(10)

> centre(x, "mean")

a) 0.8760325  
b) 0.5360891  
c) 0.6086504  
d) All of the mentioned

7. Which of the following code will print “Neither” ?  
a)

> y <- "meat"

> **switch**(y, fruit = "banana", vegetable = "broccoli", "Neither")

b)

> y <- "brocolli"

> **switch**(y, fruit = "banana", vegetable = "broccoli", "Neither")

c)

> y <- "banana"

> **switch**(y, fruit = "banana", vegetable = "broccoli", "Neither")

d) All of the mentioned

8. R has \_\_\_\_\_\_\_\_ basic indexing operators.  
a) two  
b) three  
c) four  
d) all of the mentioned

9. The syntax of the for loop is :  
a)

**for** ( $name **in** **vector** )

statement1

b)

**for** loop( name **in** **vector** )

statement1

c)

**for** ( name **in** **vector** )

statement1

d) None of the mentioned

10. Which of the following code syntax is syntactically valid ?  
a)

**if** ( statement1 ) {

statement2

} **else** **if** ( statement3 ) {

statement4

} **else** **if** ( statement5 ) {

statement6

} **else**

statement8

b)

**if** ( statement1 ) {

statement2

} elseif ( statement3 ) {

statement4

} elseif ( statement5 ) {

statement6

} **else**

statement8

c)

**if** ( statement1 ) {

statement2

} elseif ( statement3 ) {

statement4

} **else** **if** ( statement5 ) {

statement6

} **else**

statement8

d) All of the mentioned

# R Programming Questions and Answers – Functions-1

1. Which of the following is apply function in R ?  
a) apply()  
b) tapply()  
c) fapply()  
d) all of the mentioned

2. Point out the correct statement :  
a) Writing functions is a core activity of an R programmer  
b) Functions are often used to encapsulate a sequence of expressions that need to be executed numerous times  
c) Functions are also often written when code must be shared with others or the public  
d) All of the mentioned

3. Functions are defined using the \_\_\_\_\_\_\_\_\_ directive and are stored as R objects  
a) function()  
b) funct()  
c) functions()  
d) all of the mentioned

4. What will be the output of the following code ?

> f <- **function**() {

+ ## This is an empty function

+ }

> f()

a) 0  
b) No result  
c) NULL  
d) All of the mentioned

5. Point out the wrong statement :  
a) Functions in R are “second class objects”  
b) The writing of a function allows a developer to create an interface to the code, that is explicitly specified with a set of parameters  
c) Functions provides an abstraction of the code to potential users  
d) None of the mentioned

6. What will be the output of the following code ?

> f <- **function**() {

+ ## This is an empty function

+ }

> **class**(f)

a) “function”  
b) “class”  
c) “procedure”  
d) All of the mentioned

7. Which of the following code will print “Hello, world!” ?  
a)

> f <- **function**() {

+ **cat**("Hello, world!**\n**")

+ }

> f()

b)

> f <- **function**() {

+ **cat**("Hello, World!**\n**")

+ }

> f()

c)

> f <- **function**() {

+ **cat**("Hello world!**\n**")

+ }

> f()

d) All of the mentioned

8. What will be the output of following code ?

> f <- **function**(num) {

+ **for**(i **in** **seq\_len**(num)) {

+ **cat**("Hello, world!**\n**")

+ }

+ }

> f(3)

a)

Hello, world!

Hello, world!

b)

Hello, world!

Hello, world!

Hello, world!

c)

Hello, world!

d) All of the mentioned

9. The syntax of the for loop is :  
a)

**for** ( $name **in** **vector** )

statement1

b)

**for** loop( name **in** **vector** )

statement1

c)

**for** ( name **in** **vector** )

statement1

d) None of the mentioned

10. What will be the output of following code ?

> f <- **function**(num) {

+ hello <- "Hello, world!**\n**"

+ **for**(i **in** **seq\_len**(num)) {

+ **cat**(hello)

+ }

+ chars <- **nchar**(hello) \* num

+ chars

+ }

> meaningoflife <- f(3)

> **print**(meaningoflife)

a) 32  
b) 42  
c) 52  
d) All of the mentioned

R Programming Questions and Answers – Functions-2

1. What will be the output of following code snippet ?

> **paste**("a", "b", se = ":")

a) “a+b”  
b) “a=b”  
c) “a b :”  
d) none of the mentioned

2. Point out the correct statement :  
a) In R, a function is an object which has the mode function  
b) R interpreter is able to pass control to the function, along with arguments that may be necessary for the function to accomplish the actions that are desired  
c) Functions are also often written when code must be shared with others or the public  
d) All of the mentioned

3. The \_\_\_\_\_\_\_\_\_\_ function returns a list of all the formal arguments of a function  
a) formals()  
b) funct()  
c) formal()  
d) all of the mentioned

4. What will be the output of the following code ?

> f <- **function**(num = 1) {

+ hello <- "Hello, world!**\n**"

+ **for**(i **in** **seq\_len**(num)) {

+ **cat**(hello)

+ }

+ chars <- **nchar**(hello) \* num

+ chars

+ }

> f()

a)

Hello, world!

[1] 14

b)

Hello, world!

[1] 15

c)

Hello, world!

[1] 16

d) All of the mentioned

5. Point out the wrong statement :  
a) A formal argument can be a symbol, a statement of the form ‘symbol = expression’, or the special formal argument  
b) The first component of the function declaration is the keyword function  
c) The value returned by the call to function is not a function  
d) None of the mentioned

6. You can check to see whether an R object is NULL with the \_\_\_\_\_\_\_\_\_ function.  
a) is.null()  
b) is.nullobj()  
c) null()  
d) all of the mentioned

7. Which of the following code will print NULL ?  
a) > args(paste)  
b) > arg(paste)  
c) > args(pastebin)  
d) all of the mentioned

8. What will be the output of following code ?

> f <- **function**(a, b) {

+ a^2

+ }

> f(2)

a) 4  
b) 3  
c) 2  
d) All of the mentioned

9. What will be the output of following code snippet ?

> **paste**("a", "b", sep = ":")

a) “a+b”  
b) “a=b”  
c) “a:b”  
d) none of the mentioned

10. What will be the output of following code ?

> f <- **function**(a, b) {

+ **print**(a)

+ **print**(b)

+ }

> f(45)

a) 32  
b) 42  
c) 52  
d) 45