



Started on	Saturday, 1 February 2025, 1:07 AM
State	Finished
Completed on	Saturday, 1 February 2025, 1:19 AM
Time taken	11 mins 21 secs
Marks	19.50/20.00
Grade	97.50 out of 100.00
Feedback	Congratulations!!! You have passed by securing more than 80%

Question 1

1.00/1.00

Match the appropriate opening and closing blocks in looping statements.

BEGIN END



FOR END FOR



```
IF
```

```
END IF
```



WHILE END WHILE



Your answer is correct.

The correct answer is: BEGIN → END, FOR → END FOR, IF → END IF, WHILE → END WHILE

Question 2

1.00/1.00

Which looping logic is exit controlled?

Select one:

- a. For loop
- b. While loop
- c. do-while loop ✓

Your answer is correct. (Do-while loop logic executes the statements at least once, and finally checks for the condition to be evaluated)

The correct answer is: do-while loop

Question 3

1.00/1.00

BEGIN

```
DECLARE variables i, factorial
```

```
SET factorial <-- 1
```

```
FOR i<--1 to 5 do
```



```
factorial <--factorial * i
```



```
i <-- i+1
```

```
END FOR
```

```
PRINT factorial
```

```
END
```

Which of the following statement should be inserted to complete the above pseudo code for finding factorial of 5 numbers.

Your answer is correct.

The logic for finding a factorial is factorial * index

The correct answer is:

```
BEGIN
```

```
DECLARE variables i, factorial
```

```
SET factorial <-- 1
```

```
FOR i<--1 to 5 do
```

```
[ factorial <--factorial * i ]
```

```
i <-- i+1
```

```
END FOR
```

```
PRINT factorial
```

```
END
```

Which of the following statement should be inserted to complete the above pseudo code for finding factorial of 5 numbers.

Question 4

1.00/1.00

Consider the output: "0, 2, 4, 6, 8 ,10 ,12, 16"

Which of the below given pseudo code snippet gives the above output?

Select one:



a. BEGIN

```
DECLARE number, count, even
```

```
SET count <-- 8, number <-- 0, even <-- 0
```

```
WHILE number<count
```

```
PRINT even
```

```
SET even <-- even + 2
```

```
Number <-- number+ 2
```

```
END WHILE
```



END

☐ b. BEGIN
DECLARE number, count, even
SET count <-- 16, number <-- 0, even <-- 0
WHILE number<count
 PRINT even
 SET even <-- even + 2
 Number <-- number+ 1
END WHILE
PRINT even
END

☐ c. BEGIN ✓
DECLARE number, count, even
SET count <-- 8, number <-- 0, even <-- 0
WHILE number<count
 PRINT even
 SET even <-- even + 2
 number <-- number + 1
END WHILE
PRINT even
END

☐ d. BEGIN
DECLARE number, count, even
SET count <-- 8, number <-- 0, even <-- 0
WHILE number<count
 PRINT even
 SET even <-- even + 1
 Number <-- number+ 1
END WHILE
PRINT even
END

Your answer is correct.

The correct answer is:

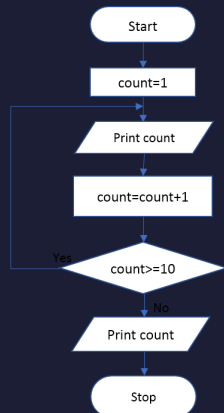
BEGIN
DECLARE number, count, even
SET count <-- 8, number <-- 0, even <-- 0
WHILE number<count
 PRINT even
 SET even <-- even + 2
 number <-- number + 1
END WHILE
PRINT even



Question 5

1.00/1.00

Predict the output of the given flowchart.



Select one:

- ☐ a. 1
1
- ☐ b. 2
1
- ☒ c. 1 ✓
2
- ☐ d. 2
2

Your answer is correct.

Print statement is executed first, and prints count as 1. Count is incremented to 1 and the condition will be checked. When it becomes false, the final count value 2 gets printed

The correct answer is:

1

2

Question 6

1.00/1.00

Iteration/looping is a repetition of_____

Select one or more:

- ☐ a. variables
- ☐ b. operation
- ☒ c. single statement ✓



☒ d. Block of statements ✓



100%



Your answer is correct. **Looping block can have a single statement or block of statements**

The correct answers are: single statement, Block of statements

Question 7

1.00/1.00

Do-while looping statement is almost same as_____

Select one:

- ☐ a. for loop
- ☒ b. While loop ✓
- ☐ c. Nested if
- ☐ d. if-else

Your answer is correct.

The correct answer is: While loop

Question 8

1.00/1.00

What is true about FOR LOOP?

Select one:

- ☐ a. For loop executes the statements at least once even if the condition is false
- ☐ b. For loop executes the statement without checking the condition
- ☐ c. For loop cannot be nested
- ☒ d. In for loop, the exact number of iterations is known ✓

Your answer is correct. **In for loop, the exact number of iterations is known and it is entry controlled. For loop can be nested**

The correct answer is: In for loop, the exact number of iterations is known

Question 9

1.00/1.00

Jack wants to book flight tickets in Feather-Airways' online portal for his family of five. Passenger details like name, age, gender etc. should be entered for each member. The same process of getting details continues for all the five members. The above scenario is a good example for which looping statements?

Select one:

- ☐ a. While loop
- ☒ b. For loop ✓
- ☐ c. Do-while loop



Your answer is correct. **When the exact number of iterations is known, For loop can be used**

The correct answer is: For loop



Question 10

1.00/1.00

What will be the output for WHILE loop?

```
BEGIN
DECLARE number
SET number <-- 30
WHILE number>0
    number <-- number-4
END WHILE
PRINT number
END
```

Select one:

- ☒ a. -2✓
- ☐ b. 2
- ☐ c. 4
- ☐ d. 0

Your answer is correct.

The correct answer is: -2

Question 11

1.00/1.00

What is the output for FOR-loop snippet?

```
FOR i <--1 to 15
    PRINT i
    i <-- i+3
END FOR
```

Select one:

- ☒ a. 1 4 7 10 13✓
- ☐ b. 4 7 10 13
- ☐ c. 1 4 7 10 13 15 16
- ☐ d. 4 7 10 13 16

Your answer is correct. Value gets incremented by 3, until the number is less than 15

The correct answer is: 1 4 7 10 13



100%



Question 12

1.00/1.00

Which of the following symbols is inappropriate in building the flowchart pertaining to sequential flow of program?

Select one:

- ☐ a. rectangle
- ☐ b. parallelogram
- ☐ c. oval
- ☒ d. diamond ✓

Your answer is correct. In a sequential Flow of a program, Decision making symbol is irrelevant
The correct answer is: diamond

Question 13

1.00/1.00

The statement / statements within the loop must get executed at least once except for do-while statement. State True/False.

Select one:

- ☐ True
- ☒ False ✓

Your answer is correct. Looping statements except do-while are entry-controlled that is only if the condition is met it allows the block to execute. Whereas do-while executes the statement at least once before checking the condition
The correct answer is 'False'.

Question 14

1.00/1.00

Which of the following statements are true with respect to looping statements?

Select one or more:

- ☒ a. initial condition must be applied before the loop begins to execute ✓
- ☐ b. A loop should run infinite number of times
- ☐ c. conditional statements are not allowed within a loop
- ☒ d. the condition under which the iterative process should get terminated must be given ✓

Your answer is correct. **Initial condition must be applied before the loop begins to execute. The iteration must terminate at some point of time. A looping statement can be nested and can have decision making statements**

The correct answers are: initial condition must be applied before the loop begins to execute, the condition under which the iterative process should get terminated must be given



Question 15

0.50/1.00

Which of the following statements are true?

Select one or more:

- ☒ a. The operand in an expression can be a variable or a constant. ✓
- ☐ b. The operand in an expression must always be a variable.
- ☐ c. An operand is a mandatory element in an expression.
- ☐ d. The operand in an expression must always be a constant.

Your answer is partially correct. **The operand in an expression can be a variable or a constant. Operator without operand is meaningless**

You have correctly selected 1.

The correct answers are:

An operand is a mandatory element in an expression.,

The operand in an expression can be a variable or a constant.

Question 16

1.00/1.00

Consider you have a Rubik cube with different colors in each face. To solve this cube, you will continue to rotate the sides until you reach same colors in all faces. This is a real time example for which looping statements?

Select one:

- ☐ a. Nested-if
- ☐ b. Do-while
- ☒ c. While ✓
- ☐ d. For

Your answer is correct. **In Rubik cube, you first check for the colours in all sides. If the colours are not the same, the cube is rotated until it attains same colours in all faces**

The correct answer is: While

Question 17

1.00/1.00

d f a o n w h g r l e t m p i

DOWN:

1) Step by step list of instructions

4) When you know the exact number of iterations, this loop is used

Across:

2) When a process/set of actions is to be repeated, these statements are used

2) when a process/set of actions is to be repeated, these statements are used.

3) In looping, Each execution of a statement/block of statements is technically termed as_____

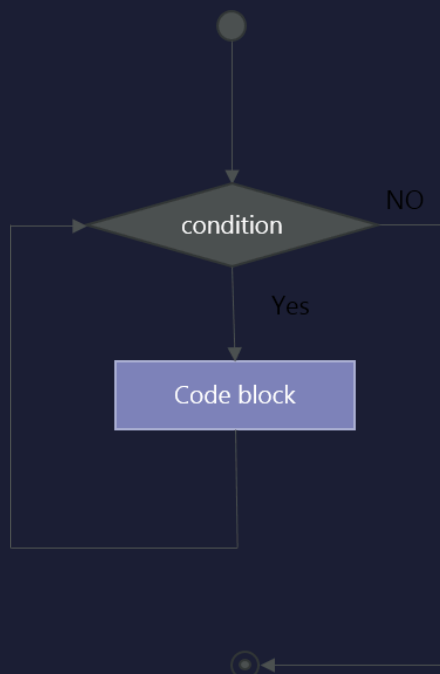
5) This loop statement is also called as exit-controlled loop

1 a ✓
2 l ✓ o ✓ f ✓
g ✓ o ✓ p ✓ i ✓ n ✓
o ✓ r ✓
3 i ✓ t ✓ e ✓ r ✓ a ✓ t ✓ i ✓ o ✓ n ✓
i ✓
t ✓
5 d ✓ o ✓ w ✓ h ✓ i ✓ l ✓ e ✓
m ✓

Question 18

1.00/1.00

Identify the logic which suits the flowchart?



Select one:

- ☐ a. for loop
- ☒ b. While loop ✓
- ☐ c. Do-while loop
- ☐ d. nested loop



Your answer is correct. While loop checks for the condition first. Only if it is true, it enters the block. The statements gets repeated until the condition becomes false.

The correct answer is: While loop

Question 19

1.00/1.00

It's Halloween. You go from house to house, tricking or treating. You get 2 candies from each house that you go to. You must return home once you collect 100 candies. Can you arrange the sequence for this loop activity.

```
1 BEGIN
2 SET candy count <- 0
3 END WHILE
4 DECLARE candy_count
5 WHILE candy_count<=100
6 candy count <- candy_count+2
7 END
```

- ☐ a. 1 2 4 3 6 5 7
- ☒ b. 1 4 2 5 6 3 7 ✓
- ☐ c. 1 4 2 3 6 5 7
- ☐ d. 1 4 5 2 3 6 7

Your answer is correct.

The correct answer is:

1 4 2 5 6 3 7

Question 20

1.00/1.00

Looping statements are also called _____

- ☐ a. Program logic
- ☒ b. Iteration logic ✓
- ☐ c. Selection logic
- ☐ d. Sequence logic

Your answer is correct.

The correct answer is:

Iteration logic