

- Solution of assignment 1 -
CS

1. 9

$$\begin{aligned} 2. & 3^{\wedge} (2^* (4 + (3 \bmod 4 / 2 - 1 * (2 + 3)) - 2) + 6)^* 3 \\ & = 3^{\wedge} (2^* (4 + (3 \bmod 2 - 5 - 2) + 6)^* 3 \\ & = 3^{\wedge} (2((\cancel{4+3}) - 5 - 2) + 6)^* 3 \\ & = 3^{\wedge} (2 \times - 2 + 6)^* 3 \\ & = 3^{\wedge} (2(4 + 6))^* 3 \\ & = 3^{\wedge} 2^* 3 \\ & = \underline{\underline{27}} \end{aligned}$$

* 9

$$\begin{aligned} 3. & \text{NOT } 4 < b - 2 \text{ And } b \bmod 12 > = 3^* 2 \text{ or not } 12 / 3 < > \underline{\underline{3^* 2}} \\ & = \text{NOT } 4 < b - 2 \text{ And } b \bmod 12 > = \underline{\underline{3^* 2}} \text{ or not } \underline{\underline{12 / 3}} < > 9 \\ & = \text{NOT } 4 < \underline{\underline{b - 2}} \text{ And } b \bmod 12 > = 6 \text{ or not } 4 < > 9 \\ & = \text{NOT } 4 < 4 \text{ And } \underline{\underline{b \bmod 12}} > = 6 \text{ or not } 4 < > 9 \\ & = \text{NOT } \underline{\underline{4 < 4}} \text{ And } \underline{\underline{b > = 6}} \text{ or not } \underline{\underline{4 < > 9}} \\ & = \underline{\underline{\text{NOT}}} \text{ False and True or } \underline{\underline{\text{not}}} \text{ True.} \\ & = \text{True } \underline{\underline{\text{and}}} \text{ True or } \underline{\underline{\text{False}}} \\ & = \del{\text{True and True}} \\ & = \text{True. or False} \\ & = \underline{\underline{\text{True}}} \end{aligned}$$

* b

4. C X
 + 2
 2 3
 3 5
 4

output
 5
 10
 26
 \$

~~*~~ C

5. string C *

6. a or

7. X Y
 -5 8
 7

output
 2
 7
 8

~~*~~ C

8. b *

9. ϕ نوع
 yes NO
 S = S + 10 print X
 d = d + 1
 goto 4

→ IF $d < 5$ Then Increment s by 10
 Increment d by 1
 goto 4

5. print X.

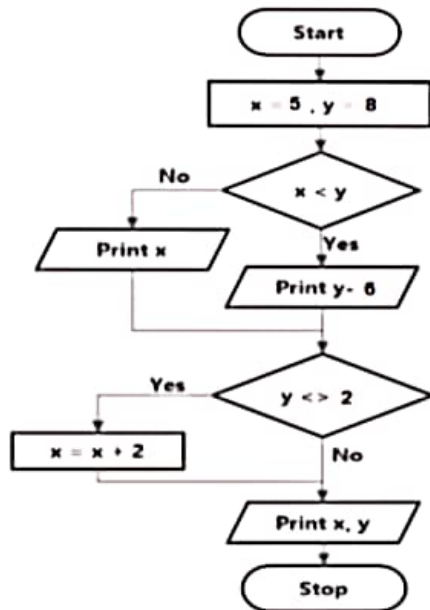
→ The answer is C *

10. Looping b *

Choose the correct answer for each of the following questions:

1. Which of the following assignment statement is incorrect:[1 mark]			
<input checked="" type="checkbox"/> a. K+2=20	<input type="checkbox"/> b. X=3	<input type="checkbox"/> c. K=X+2	<input type="checkbox"/> d. A='a'
2. What is the value of X after solving the following equation? [1 mark] $3 \wedge (2 * (4 + (3 \text{ Mod } 4 / 2 - 1 * (2 + 3)) - 2) + 6) * 3$			
<input checked="" type="checkbox"/> a. 27	<input type="checkbox"/> b. 18	<input type="checkbox"/> c. -3	<input type="checkbox"/> d. -5
3. What is the value of Y after solving the following expression? [1 mark] $M = \text{Not } 4 < 6-2 \text{ And } 6 \text{ mod } 12 \geq 3*2 \text{ Or Not } 12/3 <> 3^2$			
<input type="checkbox"/> a. False	<input checked="" type="checkbox"/> b. True	<input type="checkbox"/> c. 2	<input type="checkbox"/> d. 1
4. What is the output for the following pseudo code given the following numbers (2,3,5)[1 mark] 1. C = 1 2. If C < 4 then Go to step 4 3. Go to step 8 4. Input x 5. print x^2+1 6. Increment C by 1 7. Go to step 2 8. Print "\$" 9. End			
<input type="checkbox"/> a. 2 3 5 \$	<input type="checkbox"/> b. 8 27 125 \$	<input checked="" type="checkbox"/> c. 5 10 26 \$	<input type="checkbox"/> d. 5 10 \$
5. If the value of the variable C is "Skills" , then the datatype of C is : [1 mark]			
<input type="checkbox"/> a. Integer	<input type="checkbox"/> b. Real	<input checked="" type="checkbox"/> c. String	<input type="checkbox"/> d. Boolean
6. The operator that has the Lowest priority in the following is : [1 mark]			
<input type="checkbox"/> a. /	<input type="checkbox"/> b. ^	<input type="checkbox"/> c. +	<input checked="" type="checkbox"/> d. OR

7. What is the output from the following flowchart? [1 mark]



- a. 2 5 8 b. 2 7 2 c. 2 7 8 d. 2 5 2

8. The equivalent Pseudocode for the Flowchart in Question 7 is [4 mark]

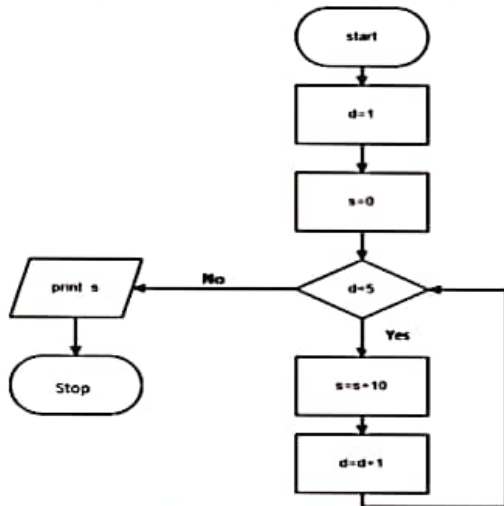
- a. 1. Start
 2. x=5 ,y=8
 3. If x< y then print y-6
 4. print x
 5. If y<>2 then x=x+2
 6. print x,y
 7. stop

- b. 1. Start
 2. x=5 ,y=8
 3. if x< y then print y-6 else print x
 4. if y<>2 then x=x+2
 5. print x,y
 6. stop

- c. 1. Start
 2. x=5 ,y=8
 3. if x< y then print y-6 else print x
 4. if y<>2 then x=x+2 else print x,y
 5. stop

- d. None of them

9. What is the equivalent Pseudo Code for the following Flowchart? [1 mark]



a. 1. Start
 2. Let d = 1
 3. Let s = 0
 4. If d < 5 then
 Increment s
 by 10
 Stop
 5. d=d+1
 6. print s
 7. stop

b. 1. Start
 2. Let d=1
 3. Let s=0
 4. if d<5 then
 Increment s by 10
 5. d=d+1
 6. Print s
 7. Stop

1. Start
 2. Let d=1
 3. Let s=0
 4. If d < 5 then
 Increment s by 10
 Increment d by 1
 Go to 4
 5. Print s
 6. Stop

d. 1. Start
 2. Let d=1
 3. Let s=0
 4. If d < 5 then
 Increment s by 10
 Increment d by 1
 else
 Print s
 5. Stop

10. The type of the Flowchart in Question 9 is :[1 mark]

a. Selection

Looping

c. Sequence