PARAGON CONVENT SCHOOL

SECTOR 24 - B CHANDIGARH

CLASS 7

CH- 9 LOOPING STATEMENTS IN BASIC-256

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A. Fill in the blanks:

1. **Loop** means repeated execution of statements for a fixed number of times in a program.
2. The **pause** statement tells BASIC-256 to stop executing the current program for a specified number of seconds.
3. The control variable is assigned an **initial** and **final** value in FOR..NEXT statement.
4. FOR statement is always used along with the **NEXT** statement.
5. The **step** value is optional and can be either positive or negative.

B. State true or false:

1. Looping techniques reduces the number of instructions. **True**
2. FOR statement increments the value of the control variable by one. **False**
3. The same control variable can be used in different loops. **False**
4. In Nested loop, the outermost loop will be executed first, before the inner loop. **False**
5. There can be a maximum of nine loops within a loop. **True**
6. STEP value can also be negative. **True**

C. Multiple choice Questions:

1. Which variable keeps a track of the number of iterations the program has been executed in a loop?

   a) CONTROL b) NEXT c) FOR

2. Which value is optional and can either be positive or negative?

   a) FOR b) STEP c) NEXT

3. Which statement increments a control variable, and directs the program control back to the FOR statement?

   a) NEXT b) FOR c) STEP

4. Which statement shifts the control back to the WHILE statement?

a) END WHILE b) WEND c) END

5. Which command pauses the execution of loop in BASIC-256?

a) Pause b) STOP c) END

D. Answer in one word.

1. Name the technique in programming that reduces the number of instructions.

Ans. Looping

2. Which loop will get executed first in Nested For…Next loop?

Ans. Inner loop gets executed first

3. Name the variable that controls and counts the iteration of a loop.

Ans. Control Variable

4. Which statement is used when a loop has to be executed while a given condition remains true?

Ans. NEXT statement

5. Which loop continues to repeat a block of statements as long as the condition is false?

Ans. Do UNTIL loop

E. Answer the following Questions:

1. What is looping?

Ans. Looping means repeated execution of a statement or a set of statements. The advantage of using looping technique in programming is that it reduces the number of instructions and memory space.

2. Define the FOR…NEXT looping statement.

Ans. The process of repeating a program segment in a loop can be simplified and controlled by using FOR…NEXT statement. This also reduces the length of a program.

SYNTAX:

FOR <control variable>=<initial value>To<final value>

Statement(s)

NEXT<control variable>

3. What is the use of STEP statement in FOR…NEXT?

Ans. By default, the NEXT statement increments the value of the control variable by 1, but we can increase or decrease the value as per our choice using STEP statement. STEP value is optional and can either be positive or negative.

4. Describe the term nested loop.

Ans. The use of a loop statement within another loop statement is known as nested loop. For example, the FOR…NEXT which lies outside or encloses the second FOR…NEXT statement is called Outer loop. The one, which lies inside is called Inner loop.

5. How is WHILE…END WHILE loop different from DO UNTIL loop?

Ans. WHILE…END statement is used when a loop has to be executed repeatedly, while a given condition remains true. Whereas, when a loop has to be executed repeatedly as long as the condition is false. In such cases, DO UNTIL statement is used.

6. Write the syntax of DO UNTIL loop.

Ans. Syntax:

DO

<statement>

UNTIL<condition>

7. What is the use of PAUSE statement?

Ans. The PAUSE statement stops executing the current program for a specified number of seconds.

8. Write the difference between WHILE…END WHILE and FOR…NEXT loop.

Ans. When a loop has to be executed repeatedly while a given condition remains true, the WHILE…END WHILE statement is used. WHILE statement directs the computer about how many times the process has to be repeated and END WHILE statement shifts the control back to the WHILE statement. The FOR…NEXT statement is used when a group of statements is to be executed for a specific number of times. This also reduces the length of a program.