BRAIN DEVELOPER

A. Fill in the blanks:

1. **GOTO** statement is referred to an unconditional transfer control.
2. String variable must be followed by a **$** symbol.
3. **CLS** statement is used to clear the output screen.
4. If the condition after IF is true, then the instructions specified after **THEN** are executed.
5. **Label** is a sequence of characters that identifies a location within a program.

B. State true or false:

1. Constants can change their values during the execution of a program.   **False**
2. Numeric value can hold only numbers.   **True**
3. The condition in IF…THEN…ELSE statement is given by the logical operators.   **False**
4. GOTO statement transfers the program control from one statement to another.   **True**
5. An infinite loop is terminated by pressing the Stop button.   **True**

C. Multiple choice Questions:

1. ……………. operator returns True, if at least one of the relational expression is True.

   a) AND   b) OR   c) NOT

2. …………………. statement is used for making decisions based on comparisons.

   a) PRINT   b) INPUT   c) IF..THEN

3. In IF…THEN...ELSE statement is the condition is False, the the statements after ………..
   will be executed?

   a) ELSE   b) IF   c) THEN

4. The ………..………… statement is used to transfer the program control from one statement to
   another.

   a) PRINT   b) INPUT   c) GOTO

5. ………… statement is used when we want to have more than one choice in the IF…. THEN statement.

   a) <mark>ELSE IF</mark>   b) GOTO   c) IF…. THEN…. ELSE

D. Identify the errors.

1. IF A$ = 5 THAN GOTO
   START
   Ans. IF A = 5 THEN GOTO START

2. IF A>B THEN
   PRINT A IS GREATER
   Ans. IF A>B THEN
        PRINT "A IS GREATER"

3. B$ = HELLO
   IF A=B THEN
   PRINT A
   Ans. B$ = "HELLO"
        IF A=B THEN
        PRINT A

4. IF A > B AND A > C
   PRINT A + B
   ELSE PRINT A – B
   Ans. IF A > B AND A > C THEN
        PRINT A + B
        ELSE PRINT A – B

5. IF X= "SUNDAY"
   THEN PRINT, "HAVE FUN"
   ELSE PRINT, "FOLLOW THE ROUTINE"
   Ans. IF X= "SUNDAY" THEN
        PRINT "HAVE FUN"
        ELSE
        PRINT "FOLLOW THE ROUTINE"

E. Answer the following Questions:

1. What are constants and variables?

Ans. Constants are the values that do not change during the execution of a program. A variable is a named location in the memory of computer that stores data temporarily.

2. What is the use of Control statements?

Ans. In a program, the statements are generally executed in a sequential manner. However, at times the user may need to change this order of execution, either by repeating or skipping the execution of a few statements subjected to a given condition. In such situations, the task can be performed by the use of Control statements.

3. Define IF…THEN statement with the help of an example.

Ans. The IF…THEN statement is the most basic type of control statement. It is used to check conditions, which contain comparison operators. It checks only the "TRUE" condition of the program and comes to an end.

For example: IF X>Y THEN C=C+1, it means that if X is greater than Y, then 1 is added to the value of C.

4. Briefly explain the conditional statement IF…. THEN…. ELSE.

Ans. IF…. THEN…. ELSE is a decision-making statement. If the condition given after IF is true, statements specified after THEN is executed. But if the condition is False, then the statement after ELSE are executed.

Syntax: IF <condition> THEN <statement1> ELSE <statement2> END IF

5. Explain the use of the END IF statement with the help of an example.

Ans. END IF allows a user to have multiple commands after the IF…. THEN statement, but they must start on the line after the IF statement. The END IF appears after the completion of the program but before the END statement.

For example: INPUT X

          IF X>10 THEN

          PRINT "X is greater than 10"

          ELSE

          PRINT "X is not greater than 10"

          END IF

          END

6. Write the difference between GOTO statement and GOSUB statement.

Ans. The GOTO transfers the control to a specified label and allows the execution of program for a specific number of times. Once the condition is satisfied, the execution stops.

The GOSUB- RETURN command is same as GOTO, when it encounters a RETURN statement, the program returns back to the GOSUB command.

7. Name the three types of Logical operators. Give examples.

Ans. The three types of Logical operators are:

i) **AND**: This operator returns only 'True' only if both the relational expressions are True. For example: C>A AND C>B.

ii) **OR:** This operator returns only 'True' if at least one of the relational expressions is True. For example: B>A AND B>C.

iii) **NOT**: This operator is used with single relational expression. It returns 'True' if the relational expression returns 'False' and vice – versa. For example: Not A>C.