



**ST. LAWRENCE HIGH SCHOOL**  
**A Jesuit Christian Minority Institution**  
**Third Term Examination- 2018**



**Sub: Computer Science**

**Class: VI**

**F.M.: 70**

**Duration: 2 Hours**

**Date: 1<sup>st</sup> November, 2018**

**SOLUTION**

GROUP A

**1. Choose the correct option:**

(i) If \_\_\_\_ is put after a numeric variable, it would be read as an invalid variable.

Answer: (c) \$

(ii) IF-THEN-ELSE is a \_\_\_\_ statement.

Answer: (b) Conditional

(iii) This statement is used to assign a value to a variable.

Answer: (a) LET

(iv) The most common resolution is:

Answer: (b) 640×480

(v) \_\_\_\_ command sets a pixel of a specified colour on the output screen.

Answer: (a) PSET

**2. Answer the following questions:**

(i) Match the following:

Column A	Column B
Assignment statement	LET
Input statement	INPUT
Output statement	PRINT
REM statement	REM
Conditional statement	IF-THEN-ELSE

(ii) Fill in the blanks:

(a) Add CC and Add BCC allow us to send an e-mail to more than one person.

(b) QBASIC and GWBasic are the two most common versions of the BASIC Language.

(c) In the SOUND command X,Y; X stands for Frequency and Y stands for Duration.

## GROUP B

### 3. Answer the following questions:

(i) What are search engines?

They provide us links or URLs of the information we are seeking. They are used when we do not know the exact URL or the website of the information we are looking for.

(ii) What is an e-mail?

It refers to electronic mail. It is like letters that can be sent and received via internet.

(iii) What is ISP?

It stands for Internet Service Provider.

(iv) What is Primary memory?

This is the main memory of the computer. It comprises of RAM and ROM.

(v) What are variables?

An area in a program which can be referred to by name and whose value can change during the execution of the program.

(vi) What is QBASIC?

It is a high level programming language used to provide instructions to the computer for a desired output.

### 4. Answer the following questions:

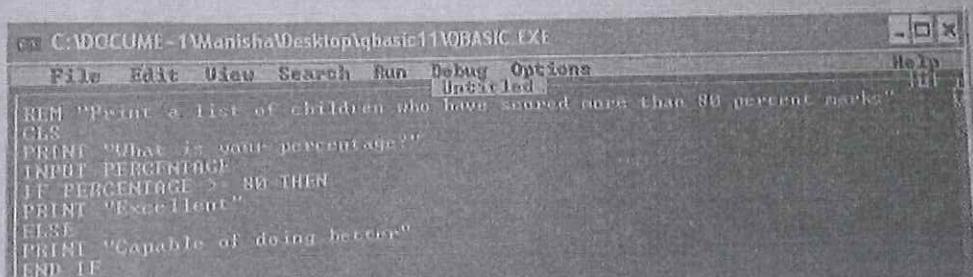
(i) What is conditional statement in QBASIC? Give an example.

When decision making is required to be done, then a conditional statement is used.

*Conditional Statements* When decision making is required to be done, then a conditional statement like IF-THEN-ELSE is used.

Let's understand with the help of some examples.

1. If the percentage accepted for a child is, say  $\geq 80$ , then the interpreter prints "Excellent" as output. Else, it prints "Capable of doing better". So, decision is made on the basis of the input given and action is performed.



```

C:\DOCUME~1\Manisha\Desktop\qbasic1\QBASIC.EXE
File Edit View Search Run Debug Options Help
Unloaded
REM "Print a list of children who have scored more than 80 percent mark."
CLS
PRINT "What is your percentage?"
INPUT PERCENTAGE
IF PERCENTAGE >= 80 THEN
PRINT "Excellent"
ELSE
PRINT "Capable of doing better"
END IF

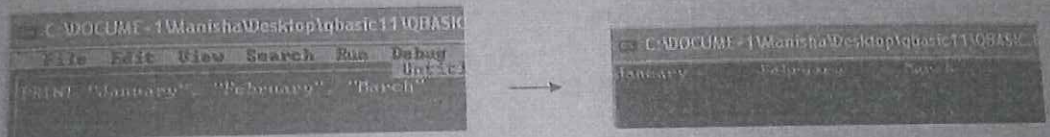
```

(ii) What is OUTPUT statement in QBASIC? Explain.

Hints: It is used to display output on the screen.

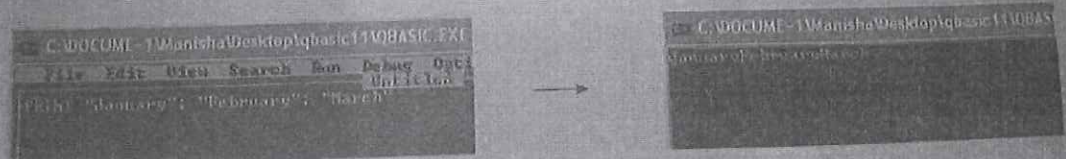
**OUTPUT statement** PRINT is the keyword to display output on the screen. You learned how to use PRINT command to write a program in the beginning of this chapter. Let's learn about some more features of the PRINT command or statement.

**Use of comma (,)**  
In QBASIC, the screen is divided into columns of 14 characters. If you use comma, the output will be printed in columns.



The screenshot shows two windows. The left window contains the code: `PRINT "January", "February", "March"`. The right window shows the output: "January", "February", "March", where each word is aligned in its own column.

**Use of semicolon (;)**  
If you use semicolons, the output will be printed in a continuous fashion without any space between the words.



The screenshot shows two windows. The left window contains the code: `PRINT "January"; "February"; "March"`. The right window shows the output: "JanuaryFebruaryMarch", where the words are concatenated without spaces.

(iii) What is the role of SCREEN command? Give syntax

Hints: The SCREEN command is required to switch the output mode of the screen to graphics mode, otherwise no graphics command will work.

**SCREEN command**  
The SCREEN command is required to switch the output mode of the screen to graphics mode, otherwise no graphics command will work. By default, the Screen mode is 0, which is the Text screen (see the table on the previous page).

**Syntax:**  
Screen <Mode Number>

(iv) What is the role of BEEP command? Give syntax.

Hints: It is used to produce a beep sound for about half a second.

**Sound in QBASIC**  
**BEEP command**  
The BEEP command is used to produce a beep sound for about half a second.

**Syntax:**  
BEEP



(v) What is the role of PSET command? Give syntax.

Hints: PSET stands for setting a pixel of a specified colour on the output screen.

### PSET command

PSET stands for setting a pixel of a specified colour on the output screen. PSET fills a pixel at the screen coordinate given as Column, Row.

#### Syntax:

PSET (Col,Row),Color of Pixel

(vi) How to get QBASIC?

### How to get QBASIC?

QBASIC is available along with some Microsoft operating systems such as MS DOS and Windows 95 and 98. You can start QBASIC only when the computer is in the MS DOS prompt. To do so, click on

**Start → Programs → MS DOS**

In Windows 2000 XP it is called the **Command Prompt** and you can find it by clicking on

**Start → Programs → Accessories → Command Prompt**

## GROUP C

5. Answer the following questions:

(i) Describe the requirements for an Internet connection.

### Requirements for an Internet connection

The Internet is a worldwide system of computer networks in which users at any one computer can interact with users at other computers.

You need the following to use the Internet facility.

1. A computer
2. For a broadband connection you need a cable Modem or DSL(Digital Subscriber Line) for a dial-up connection you need a dial up modem. These are inbuilt now a day.
3. An account or registration with an **ISP (Internet Service Provider)** like VSNL or Airtel. The ISP will register your name and give you a user name and a password. If it is a dial up, phone number for you to dial for connection will also be given.
4. A software of the particular ISP that helps you to connect. For example, VSNL's software is VSNL login interface and for broadband and dial up respectively.
5. A browser or Internet software that helps you to surf the net, like Microsoft Internet Explorer and Netscape Navigator.

(ii) Describe the process to open an e-mail account.

Mention Basic steps.

(iii) How will you send word files, excel sheets or pictures through e-mail? Explain.

You can also send Word files, Excel sheets, or pictures through e-mail by attaching them. To add these files:

1. Click on **Attach a file** (7). A **Browse or choose file to upload** by mail.google.com dialog box opens up.
2. Find and select the file you want to send.
3. Click on **Open** (8). The dialog box will close and the file will get attached to your mail. It may take some time to get attached.
4. Click on **Send**.

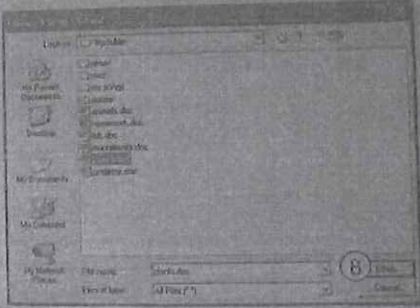


Fig 9.12

(iv) Give the syntax of CIRCLE command and explain each parameter of the command.

### CIRCLE command

The CIRCLE command is used to draw a circle on the QBASIC screen.

**Syntax:**  
Circle (X,Y), Radius, Color

In the above syntax:

1. X and Y specify the coordinates (centre point) from where the circle will be.
2. Radius gives the radius of the circle.
3. Color specifies the outline colour of the circle.

(v) Give the syntax of PAINT command and explain each parameter of the command.

### PAINT command

The PAINT command is used to fill any closed figure with a specified colour.

**Syntax:**  
PAINT (X,Y), Fill Color, Border Color

In the above syntax:

1. X and Y specify the coordinates lying between the closed shape.
2. Fill Color is the colour (specified in number) which the figure is filled with.
3. Border Color is the colour (specified in number) of the border of the figure, which must be specified. If it is not specified then the whole screen is filled with the Fill color.



(vi) Give the syntax of LINE command and explain each parameter of the command.

**LINE command**

The LINE command is used to draw a line on the QBASIC screen.

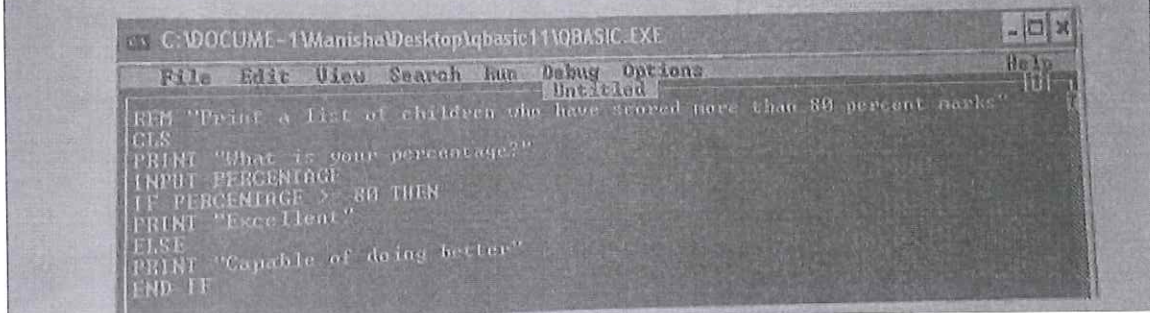
**Syntax:**  
LINE (X1, Y1) - (X2, Y2), COLOR, B/BF

In the above syntax:

1. X1 and Y1 are the coordinates of the starting point, where X1 is the column coordinate and Y1 is the row coordinate.

(vii) Write a program in QBASIC based on the following conditions:

1. If the percentage accepted for a child is, say  $\geq 80$ , then the interpreter prints "Excellent" as output. Else, it prints "Capable of doing better". So, decision is made on the basis of the input given and action is performed.



```
REM "Print a list of children who have scored more than 80 percent marks"
CLS
PRINT "What is your percentage?"
INPUT PERCENTAGE
IF PERCENTAGE >= 80 THEN
PRINT "Excellent"
ELSE
PRINT "Capable of doing better"
END IF
```

(viii) List out the main elements of QBASIC.

**Elements of QBASIC**

The programming language has the following elements.

1. Character set
2. Constants
3. Variables
4. Operators
5. Statements

**Character set**

It has digits (0, 1, 2, 3, 4, 5, 6, 7, 8, 9), letters (A, B, C, ..., Z and a, b, c, d, ..., z), and special characters (+ - \* / < > = ( ) . : ; ' " % \$ # ! ?).

**Constants**

Constants are the values stored in a program which do not change during execution of the program. They are classified as **numeric** and **string** constants.