

Aga Khan University Examination Board

Notes from E-Marking Centre on SSC-II Computer Science Examination April/ May 2019

Introduction

This document has been produced for the teachers and candidates of Secondary School Certificate (SSC-II) Computer Science. It contains comments on candidates' responses to the 2019 SSC-II Examination, indicating the quality of the responses and highlighting their relative strengths and weaknesses.

E-Marking Notes

This document includes overall comments on candidates' performance on every question and *some* specific examples of candidates' responses which support the mentioned comments. Please note that the descriptive comments represent an overall perception of the better and weaker responses as gathered from the e-marking session. However, the candidates' responses shared in this document represent some specific example(s) of the mentioned comments.

Teachers and candidates should be aware that examiners may ask questions that address the Student Learning Outcomes (SLOs) in a manner that requires candidates to respond by integrating knowledge, understanding and application skills they have developed during the course of study. Candidates are advised to read and comprehend each question carefully before writing the response to fulfill the demand of the question.

Candidates need to be aware that the marks allocated to the questions are related to the answer space provided on the examination paper as a guide to the length of the required response. A longer response will not in itself lead to higher marks. Candidates need to be familiar with the command words in the SLOs which contain terms commonly used in examination questions. However, candidates should also be aware that not all questions will start with or contain one of the command words. Words such as 'how', 'why' or 'what' may also be used.

General Comments

In general, questions related to flowchart, arithmetic operations and relational operators in GW-BASIC, IF...ELSE statement, arrays, completion of the truth table, impacts of computers in society and calculating the restaurant bill using GW-BASIC were well attempted. However, questions based on FOR...NEXT loop and arrays, user-defined functions in GW-BASIC, importance of software licensing, calculating the cab service bill using GW-BASIC were generally not well attempted.

Detailed Comments:

Constructed Response Questions (CRQs)

Question 1:

An algorithm is a step by step solution to a given problem.

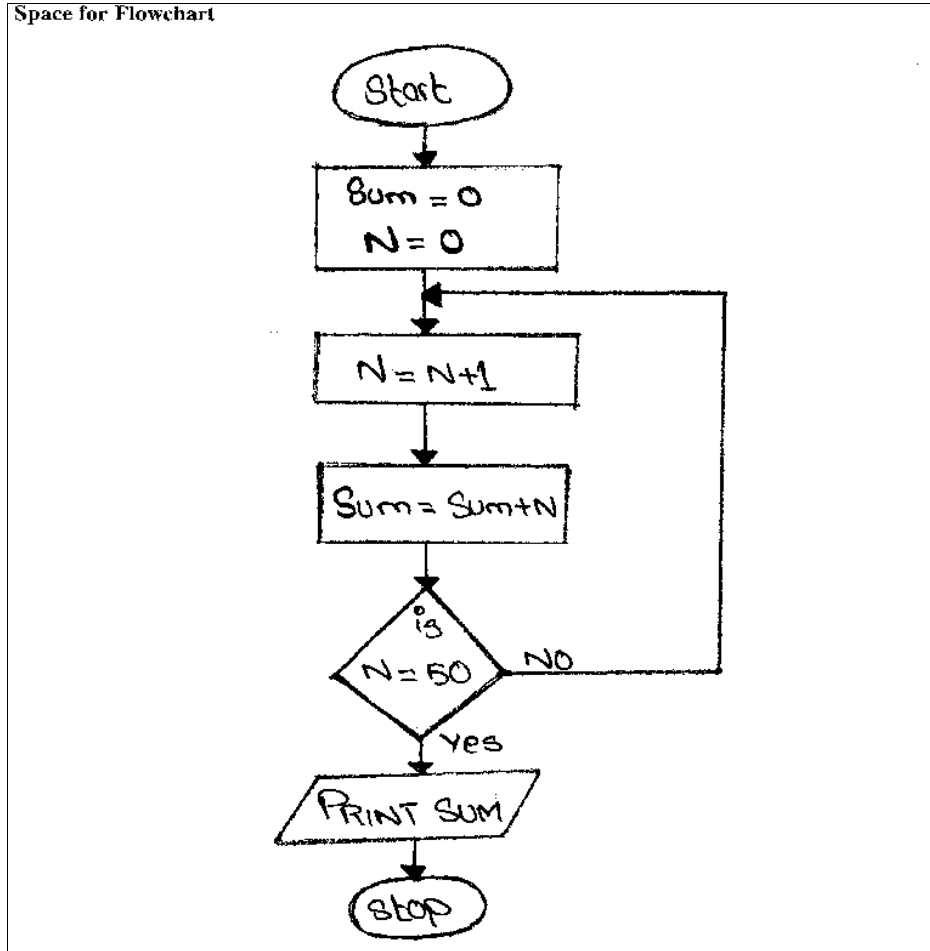
Read all FOUR steps of an algorithm and draw a flowchart for it.

1. Assign the value 0 to the variables SUM and N respectively.
2. Apply an increment on N by 1 and store the new value back in variable N.
3. Add the values of SUM and N. Store the result back in SUM variable.
4. If the value of N is equal to 50, then print the value of SUM otherwise repeat the steps 2, 3 and 4 until the value of N is equal to 50.

(**Note:** Use the same variable names in flowchart that are given in the algorithm.)

Better responses applied the correct flowchart symbols along with correct statements to design the required flowchart for the given scenario. Moreover, these responses paid attention to the note written in the question and used the same variable names as given in the scenario. These responses also connected the Yes and No arrows coming from the decision box to the correct points to depict the loop.

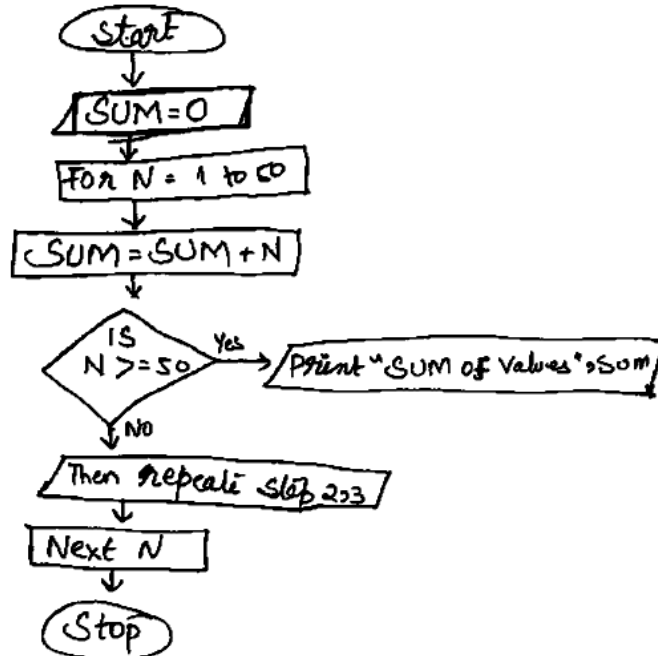
Example:



Weaker responses were not able to apply either flowchart symbols to design the flowchart for the given scenario or if the symbols were correct, then the statements written in flowchart symbols were incorrect. Some of these responses did not pay attention to the note given in the question that candidates must use the same variable names as given in the question and they used other variable names and lost marks. Some of these responses connected yes and no lines coming from decision box at incorrect points to depict incorrect loop. Moreover, these responses showed confusion between input/ output and processing boxes and used them in place of each other. Most of these responses wrote statement $SUM = SUM + 1$ that is used for counting instead of $SUM = SUM + N$ that is required in the solution of the question for totaling.

Example:

Space for Flowchart



Question 2a:

Write a GW-BASIC program that

- inputs current (I) and voltage (V) value.
- calculates and outputs power (P) value.

(Note: Formula for power is $P = I \times V$)

Better responses demonstrated strong understanding of basic concepts of GW-BASIC programming. These responses wrote correct input and output statements and used * operator for multiplication in GW-BASIC statement to calculate power rather than using \times as multiplication operator.

Example:

```
10 CLS
20 INPUT "Current";I
30 INPUT "voltage";V
40 Let P = I * V
50 PRENT P
60 END
```

Weaker responses showed poor understanding of the basic concepts of GW-BASIC programming. These responses used mathematical multiplication operator rather than multiplication operator (*) of programming/ these responses used values for voltage and current to calculate power just like a numerical rather than writing programming code for it. Most of these responses managed to correctly write the code to either print output or take input but struggled to write the formula of power in the form of GW-BASIC instruction. Likewise, another common mistake made by some of these responses was not using the comma between the message and variable name in the input statement and in output statement inverted commas were used around the name of the variable rather than writing it without commas.

Example:

```

10 C15
20 input current (I) $
30 input Voltage (V) $
40 Formula for Power is P = I x V
50 Print P
RUN

```

Question 2b:

Determine whether the following expressions of GW-BASIC will be evaluated as TRUE (1) or FALSE (0).

| GW-BASIC Expression | True/ False |
|--------------------------------|-------------|
| PRINT (3 * 3 / 3) > 3 | |
| PRINT (20 MOD 7) < 8 | |
| PRINT (5 + 5 - 5 * 5 / 5) = 5 | |
| PRINT (1 AND 0 OR 1 AND 0) = 1 | |

Better responses depicted strong understanding of almost all types of GW-BASIC operators and their evaluation in GW-BASIC statements, i.e. arithmetic operators, relational operators and logic operators.

Example:

| GW-BASIC Expression | True/ False |
|--------------------------------|-------------|
| PRINT (3 * 3 / 3) > 3 | false (0) |
| PRINT (20 MOD 7) < 8 | true (1) |
| PRINT (5 + 5 - 5 * 5 / 5) = 5 | true (1) |
| PRINT (1 AND 0 OR 1 AND 0) = 1 | false (0) |

Weaker responses were mostly unable to evaluate the second and the fourth GW-BASIC statements. It shows that candidates had poor understanding of modulus (MOD) and logic operators. However, most of these responses managed to evaluate the first and third GW-BASIC statements correctly that contain the arithmetic and relational operators.

Example:

| GW-BASIC Expression | True/ False |
|--------------------------------|-------------|
| PRINT (3 * 3 / 3) > 3 | False (0) |
| PRINT (20 MOD 7) < 8 | False (0) |
| PRINT (5 + 5 - 5 * 5 / 5) = 5 | False (0) |
| PRINT (1 AND 0 OR 1 AND 0) = 1 | True (1) |

Question 3a:

Read the given GW-BASIC program.

```
10 X = 5
20 Y = 7
30 PRINT X
40 PRINT Y
50 FOR Z = 1 TO 3
60 X = X + Y
70 PRINT X
80 Y = X
90 NEXT Z
100 PRINT Y
```

Refer this program to complete the given table with the values of **X**, **Y**, **Z** and their respective **output** values.

| Line Number | X | Y | Z | Output |
|-------------|---|---|---|--------|
| 10 | 5 | | | |
| 20 | | 7 | | |
| 30 | | | | 5 |
| 40 | | | | 7 |
| 50 | | | | |
| 60 | | | | |
| 70 | | | | |
| 80 | | | | |
| 50 | | | | |
| 60 | | | | |
| 70 | | | | |
| 80 | | | | |
| 50 | | | | |
| 60 | | | | |
| 70 | | | | |
| 80 | | | | |
| 100 | | | | 48 |

Better responses depicted that candidates interpreted the program correctly to complete the table. These responses calculated values of X, Y, Z and Output correctly with the help of GW-BASIC expressions given in the program and then wrote them in the correct line number of table.

Example:

| Line Number | X | Y | Z | Output |
|-------------|----|----|---|--------|
| 10 | 5 | | | |
| 20 | | 7 | | |
| 30 | | | | 5 |
| 40 | | | | 7 |
| 50 | | | 1 | |
| 60 | 12 | | | |
| 70 | | | | 12 |
| 80 | | 12 | | |
| 50 | | | 2 | |
| 60 | 24 | | | |
| 70 | | | | 24 |
| 80 | | 24 | | |
| 50 | | | 3 | |
| 60 | 48 | | | |
| 70 | | | | 48 |
| 80 | | 48 | | |
| 100 | | | | 48 |

Weaker responses mostly used the initial values of X and Y, i.e. $X = 5$ and $Y = 7$, for all calculations inside the loop instead of using updated values of X and Y due to which they got incorrect values in the table. Moreover, some of these responses wrote correct values of variables but in the incorrect line number of the table. Likewise, some of these responses managed to trace and write the value of counter variable Z and Output but struggled to trace the values of variables X and Y that involved calculations.

Example:

| Line Number | X | Y | Z | Output |
|-------------|----|----|---|--------|
| 10 | 5 | | | |
| 20 | | 7 | | |
| 30 | | | | 5 |
| 40 | | | | 7 |
| 50 | | | 1 | |
| 60 | 12 | | | |
| 70 | | | | 12 |
| 80 | | 12 | | |
| 50 | | | 2 | |
| 60 | 19 | | | |
| 70 | | | | 19 |
| 80 | | 19 | | |
| 50 | | | 3 | |
| 60 | 26 | | | |
| 70 | | | | 26 |
| 80 | | 26 | | |
| 100 | | | | 48 |

Question 3b:

In Computer Science examination, a student wrote the following working of IF...ELSE statement.

‘An IF...ELSE statement executes IF-block statements when the condition is false and ELSE-block statements when the condition is true.’

However, there are two errors in this statement. Rewrite the correct statement after removing the errors.

Better responses depicted good theoretical understanding of IF...ELSE statement and wrote the correct statement after removing errors, i.e. an IF...ELSE statement executes IF-block statements when the condition is true and ELSE-block statements when the condition is false.

Example:

‘An IF...ELSE statement executes IF-statements when the condition is true and ELSE-statements when the condition is false.’

Weaker responses showed lack of understanding of theoretical concepts of IF...ELSE statement. They did not focus on the command word "Rewrite" in the question and wrote irrelevant and incorrect descriptions rather than rewriting the correct version of the statement given in the question. Moreover, some of these responses showed confusion when an IF statement executes and when an ELSE statement executes.

Example:

An If statement executes, IF block statements when the condition is false else print Block statement when condition is true.

Question 4:

Read the given GW BASIC program to answer the following questions.

```
10 CLS
20 DIM A(15)
30 FOR X = 1 TO 15
40 INPUT A(X)
50 PRINT A(X) * A(X)
60 NEXT X
70 END
```

- What is the data type of array A?
- Infer the purpose of this program.
- The subscript of array A is changed to 22. Rewrite line 30 to input 22 values in array A.
- Rewrite line 50 of this program so that it subtracts 5 from each element of array A and prints the result.

(a)

Better responses understood the question well and wrote the data type of array, i.e. numeric or number, rather than writing the type of array, i.e. one-dimensional or two-dimensional array.

Example:

Numeric data type.

Weaker responses did not understand the question well and wrote the type of array such as one-dimensional array or two-dimensional array rather than writing the data type of array that is numeric.

Example:

1-dimensional array.

(b)

Better responses revealed that candidates interpreted the program given in the question very well and wrote the correct purpose of the program, that it will calculate and print the square of input of values.

Example:

Purpose of this program is to input 15 numbers and output numbers and output the square of the input numbers.

Weaker responses described the program rather than inferring the purpose of the program. Some of the common responses were such as it calculates the product of two numbers/ performs multiplication on an array elements/ multiplies two numbers/ uses FOR loop for repetition/ it contains an array that reads values using FOR...NEXT loop.

Example:

To make the array using DIM statement and produce the output by multiplying it by A from 1 to 15.

(c)

Better responses demonstrated good understanding of FOR...NEXT loop and wrote the correct syntax of this loop with correct initial and final values of counter variable.

Example:

30 For X = 1 To 22.

Weaker responses managed to answer only this part of the question among all other four parts. There were very few responses that were unable to answer this part. These responses wrote code that was incorrect due to the incorrect range of FOR...NEXT loop (mostly the final value).

Example:

```
FOR x= 1 TO 30
```

(d)

Better responses understood and answered this part correctly by rewriting the code in line 50 that subtracted 5 from each value of array.

Example:

```
50 PRINT A(x) - 5
```

Weaker responses mostly misunderstood the question and wrote the code that subtracted 5 from the square value of array elements or subtracted same array element from itself rather than rewriting the code correctly.

Example:

```
50 PRINT (A(x) * A(x)) - 5
```

Question 5:

Write a GW-BASIC program that

- contains user-defined function named **EQU** to solve the equation $Z = 2X + 3Y - 2$
- inputs two numeric values.
- calls the function **EQU** and outputs value.

Better responses demonstrated good application skills of user-defined functions in GW-BASIC and wrote correct syntax for naming, writing expression and calling user-defined function to print the values.

Example:

```
10 Def FNEQU (X, Y) = (2 * X) + (3 * Y) - 2
20 Input "Value 1" ; A
30 Input "Value 2" ; B
40 Print FNEQU (A, B)
50 End
```

Weaker responses did not know where a user-defined function is defined in a program and were not able to write the correct syntax to define it. However, there were few responses that managed to either write the arithmetic expression for the user-defined function correctly or call the user-defined function correctly to print the values and were given partial credit.

Example:

```
10 Def fn(EQU) Z = 2X + 3Y - 2
20 Input 'X'
30 Input 'Y'
40 Print 'Fn (EQU)'
50 Print Z
60 END
```

Question 6:

Complete the truth table for the given Boolean expression.

$$X = \bar{A} + (B \cdot C)$$

| A | B | C | \bar{A} | $B \cdot C$ | $X = \bar{A} + (B \cdot C)$ |
|---|---|---|-----------|-------------|-----------------------------|
| 0 | 0 | 0 | | | |
| 0 | 0 | 1 | | | |
| 0 | 1 | 0 | | | |
| 0 | 1 | 1 | | | |
| 1 | 0 | 0 | | | |
| 1 | 0 | 1 | | | |
| 1 | 1 | 0 | | | |
| 1 | 1 | 1 | | | |

Better responses showed good understanding of various Boolean operations and evaluated the Boolean expressions in the table correctly.

Example:

| A | B | C | \bar{A} | $B \cdot C$ | $X = \bar{A} + (B \cdot C)$ |
|---|---|---|-----------|-------------|-----------------------------|
| 0 | 0 | 0 | 1 | 0 | 1 |
| 0 | 0 | 1 | 1 | 0 | 1 |
| 0 | 1 | 0 | 1 | 0 | 1 |
| 0 | 1 | 1 | 1 | 1 | 1 |
| 1 | 0 | 0 | 0 | 0 | 0 |
| 1 | 0 | 1 | 0 | 0 | 0 |
| 1 | 1 | 0 | 0 | 0 | 0 |
| 1 | 1 | 1 | 0 | 1 | 1 |

Weaker responses managed to find the complement of A. However, they were not able to evaluate expressions containing AND/ OR Boolean operations.

Example:

| A | B | C | \overline{A} | $B \cdot C$ | $X = A + (B \cdot C)$ |
|---|---|---|----------------|-------------|-----------------------|
| 0 | 0 | 0 | 1 | 0 | 1 |
| 0 | 0 | 1 | 1 | 0 | 1 |
| 0 | 1 | 0 | 1 | 1 | 1 |
| 0 | 1 | 1 | 1 | 1 | 1 |
| 1 | 0 | 0 | 0 | 0 | 0 |
| 1 | 0 | 1 | 0 | 0 | 0 |
| 1 | 1 | 0 | 0 | 1 | 0 |
| 1 | 1 | 1 | 0 | 1 | 0 |

Extended Response Questions (ERQs)

The following questions offered a choice between part **a** and **b**.

Question 7a:

Describe any FOUR positive and any FOUR negative impacts of computer on society.

(**Note:** Most of the candidates opted part **a** of this question and performed well in this part.)

Better responses revealed that they understood the question well. The positive impacts of computers on society included, such as, computers are used for quick long distance communication and video calls which is time and cost efficient/ new employment opportunities are created such as trend of freelancing and working online has increased due to which people can work from home for employers from any part of the world/ paper is saved and pollution is reduced due to the replacement of paper work by the computerised systems/ computers have made e-learning easy and cost effective due to which people can study from world class institutions while staying at home.

Negative impacts described by such candidates included using computers too long causes health problems such as it may effect eyesight or make the user obese due to less physical movement/ people may become socially inactive/ computers with the internet connection can be used to spread rumors, false information and fake news quickly/ online immoral material and inappropriate websites may open.

Example:

POSITIVE IMPACTS OF COMPUTER ON SOCIETY:-

- 1) Any individual like doctor, engineer, businessman undergo in the change of their style or working patterns after getting knowledge of computer.
- 2) In common-life, an individual can also gets benefits by computer based systems when airports, hospitals, banks and departmental stores have been computerized. We can get quick services.
- 3) Through computer, it is become

easier to communicate over a long distance with someone. 4) New fields of employments are introduced.

NEGATIVE IMPACTS OF COMPUTER ON SOCIETY:-

- 1) Using computer all day can cause weak eyesight along with lack of exercise will make you fatty.
- 2) A high percentage of people are using computers now and some people are losing reality around them such as giving time to family.
- 3) Computers are replaced with jobs and people are getting unemployed day by day.
- 4) Misinformations and rumours spread so fast and this can cause a negative impact on younger generation.

Weaker responses mostly wrote advantages and disadvantages of computers in general rather than writing their positive and negative impacts on society. The positive impacts mentioned in these responses included computer is fast/ computer is precise/ it is used in hospitals, hotels, airports and other organisations to do work quickly/ it gives error free results/ it can store large amount of data/ a user can lock folder to keep his data safe/ easy to access data/ computer occupies less space.

The negative impacts written by these responses included computers are highly expensive/ a user must be literate so that he can use computer/ accidental data loss may occur/ it is difficult to access the new technologies introduced in the computers/ computers do only what is instructed to them.

Example:

- The following are four positive effects of computer on society
 - Huge amount of data can stored.
 - The work can be done in less time and efficiently.
 - The documents can be kept secrete.
 - Error free result and convenience.
- Negative impacts of computer on society:
 - It is highly expensive
 - Accidents can happen and huge amount of data can be lost sometimes.
 - Illiteracy of computers. Misuse of computers.
 - Increased unemployment and erosion of privacy.

Question 7b:

Describe the importance of having licence of a computer software from the users' point of view in FOUR points and the owner's (one who owns and sells software) point of view in FOUR points.

(**Note:** Very few students attempted this question and did not perform well.)

Better responses demonstrated good understanding of importance of software licensing and mentioned that licensed software is free from any hidden virus or malware/ user gets full support from the software company/ owner of software gets paid by user for using licensed software/ no one else can steal the idea to develop same software.

Example:

b: ~~Q~~ User's point of view: (1) Me, being a user of ^{that} a computer software should respect the hard-work of the person who made it and should actually pay money to get that instead of pirating.

2) Most people think that pirating a software doesn't come with any malware but using pirating services like ytorrent often come with viruses which are hidden but still there.

3) having licence of a software actually shows the company, organization or Person as a Professional.

(1) Respecting a ~~p~~ developer's hard-work is something we should keep in mind before pirating.

Owner's Point of view: (i) If I'm the owner of the software, and it is first of its kind, I should ~~be~~ ^{get} paid for my hard-work

(ii) If ~~the~~ my software is being bought from me and then used and I'm not financially broke then I might have enough resources for the second version of that software or completely new software. (iii) having cyber-laws is best way to protect my right but users ~~of those pirated~~ using those pirating softwares should have some dignity to not to.

~~(iv) Buying a~~ (iv) In any way, user should never accept pirated copy because that's wasting our years of work into vain.

Weaker responses depicted that candidates wrote benefits of software, rather than licensing, or gave vague responses which did not fulfill the requirements of question such as licensed software helps a number of people/ it helps users to do their work faster/ user can perform calculations / user can use software without hesitation/ more people with use the licensed software.

Example:

The importance of having a licence of compute software is alot which can help many hundreeds and thousands of people like a salesman . wants a thing which can help him to do his work and calculation in seconds and more faster then a calculator & for him there is a software designer who can help him. Now lets talk about it importance from use point of view, a user uses a software mostly for his

work like banking, seling and much more, that software helps them by decreasing their paper work and making more easier and it also helps them to work faster. Now lets talk about the owners point of view, that owner importance is that he sells and owns his own programs & software and he earns from it & it so it is very important for the owner & he owns it.

Question 8a:

Write a GW-BASIC program to be used in a restaurant that

- inputs total number of items purchased by each customer.
- inputs the price of each item and adds them to get the **total price**.
- calculates 13% as tax amount on the total bill.

Formula to Calculate Tax = Total Price \times 0.13

- adds total price and tax amount to get the amount of total bill.
- outputs the amount of total bill.
- calculates and outputs the service charges according to the given criteria.

| Total Bill | Service Charges |
|------------------------|-----------------|
| 1 to 10000 Rupees | 250 |
| More than 10000 Rupees | 500 |

(**Note:** Number of candidates who attempted part (a) was slightly higher than those who attempted part (b) of this question. Likewise, part (a) of this question was attempted better than part (b) by the candidates.)

Better responses demonstrated application of various GW-BASIC concepts correctly such as input statement/ loop syntax with initial and final values of counter variable/ tax calculation and totaling/ using GW-BASIC arithmetic and relational operators rather than mathematical operators/ IF...THEN statement with correct condition criteria. Few of these responses used array to store price of items.

Example:

| | |
|-----|--|
| 10 | CLS |
| 20 | Input "Enter number of items purchased"; X |
| 30 | For A = 1 to X |
| 40 | Input "Enter price of each item"; P |
| 50 | Sum = Sum + P |
| 60 | Next A |
| 70 | Print "Total price is "; Sum |
| 80 | Let Tax = Sum * 0.13 |
| 90 | Let Tb = Tax + Sum |
| 100 | Print "The total bill is "; Tb |
| 110 | If Tb <= 1000 then Let SC = 250 |
| 120 | If Tb > 1000 then Let SC = 500 |
| 130 | Print "The service charges are "; SC |
| 140 | End |

Weaker responses did not understand requirement of program to be written for the given scenario and made mistakes such as using mathematical arithmetic operators rather than GW-BASIC arithmetic operators/ did not use loop to input price for each purchased item/ used incorrect syntax and range of initial and final values of loop/ used inverted commas around condition used with IF...ELSE statement/ mathematical relational operators used instead of GW-BASIC relational operators/ did not write correct statement for totaling.

Example:

| | |
|----|--|
| 10 | CLS |
| 20 | Input "Total Number of items Purchased"; T |
| 30 | Input "Enter Price of Item 1"; I |
| 40 | Input "Enter Price of Item 2"; C1 |
| 50 | Input "Enter Price of Item 3"; H |

```

60 Input "Enter Price of Item 4"; K
70 Let Total Price = (I + G + H + K)
80 Print Print "Total Taxes"; Total Price * 0.13
90 Print Total Taxes
100 Print "Total Price + Total Taxes" Let = Total Bill
110 Print "Total Bill"
120 If Total Bill > 10,000 Add 250 OR ELSE
    . Add 500
130 Print T
140 Print "Total Price", "Total Tax"
150 Print "Service Charges"; C
160 Print "(Total Price + Total Tax + Service Charges)"
170 End.

```

Question 8b:

A cab service (taxi car) needs a program to calculate the bill of customers.

Write a GW-BASIC program for the cab service that

- inputs number of kilometres travelled.
- charges 30 rupees per kilometre for initial 5 kilometres.
- charges 25 rupees for each kilometre after 5 kilometres.
- adds fixed amount of 50 rupees in total charges.
- outputs the bill.

Better responses were able to apply knowledge of GW-BASIC to write a program for the scenario of cab service given in the question. These responses wrote correct input statement/ IF...ELSE statements for less than or equal to 5 kilometers and for greater than 5 kilometers/ fare calculation according to the criteria given in the question/ totaling statements/ output statements.

Example:

```
10 REM CAB SERVICE PROGRAM
20 INPUT "Enter total kilometers travelled"; D
30 IF D > 5 THEN GOTO 70 ELSE
40 LET SUBCOST = D * 30
50 LET COST = SUBCOST + 50
60 GOTO 100
70 LET EXTRA = D - 5
80 LET SUBCOST = (5 * 30) + (EXTRA * 25)
90 LET COST = SUBCOST + 50
100 PRINT, "YOUR BILL"
110 PRINT; "DISTANCE TRAVELLED"; D; " KILOMETER S"
120 PRINT "TOTAL CHARGES"; COST; " RUPEES"
130 PRINT "Thankyou for using our cab service."
140 END
```

Weaker responses mostly managed to write correct input and output statements. However, these responses lost their marks because they wrote incorrect IF...ELSE statements for less than or equal to 5 kilometers and for greater than 5 kilometers and were unable to calculate fare according to the criteria given in the question.

Example:

```
Q8b) 10 CLS
20 REM *Taxi bill of customer*
30 Input "Number of- kilo metre travelled = "; NK
40 IF NK < 5 kilometre then charge 30 rps
50 IF NK > 5 kilometres then charge 25 rps
60 Input "NK = 30 rps"
```

70 Input 1 NK > = 25 rps

80 Per NK = 30 rps

90 Per NK > = 25 rps

100 Print

110 Print "total bills"; TB

109 TB = 50 rps

120 Print "Total bills"; TB

130 End

RUN