آغا خان یونیورسٹی ایگزامینیشن بورڈ

AGA KHAN UNIVERSITY EXAMINATION BOARD

Notes from E-Marking Centre on SSC-II Computer Science Annual Examinations 2025

Introduction

This document has been produced for the teachers and candidates of Secondary School Certificate (SSC) Part II Computer Science. It contains comments on candidates' responses to the 2025 SSC-II Examination, indicating the quality of the responses and highlighting their relative strengths and weaknesses.

E-Marking Notes

This includes overall comments on candidates' performance on every question and *some* specific examples of candidates' responses that 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 fulfil 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. It is imperative to refer to the command word guide available on AKU-EB website for understanding the expectations of the command word.

General Observations

Most candidates succeeded in constructing better responses, particularly on the topics of identifying the symbols of a flowchart, applying relational operators, identifying the logic circuit expression and truth table, applying loops in different scenarios, and computer security & ethics. However, teachers should focus on the following areas and provide more drills and practice to foster a solid understanding:

- Interconversion in loop types.
- Different types of programming logics.

Note: Candidates' responses shown in this report have not been corrected for grammar, spelling, format, or information.

DETAILED COMMENTS

Constructed Response Questions (CRQs)

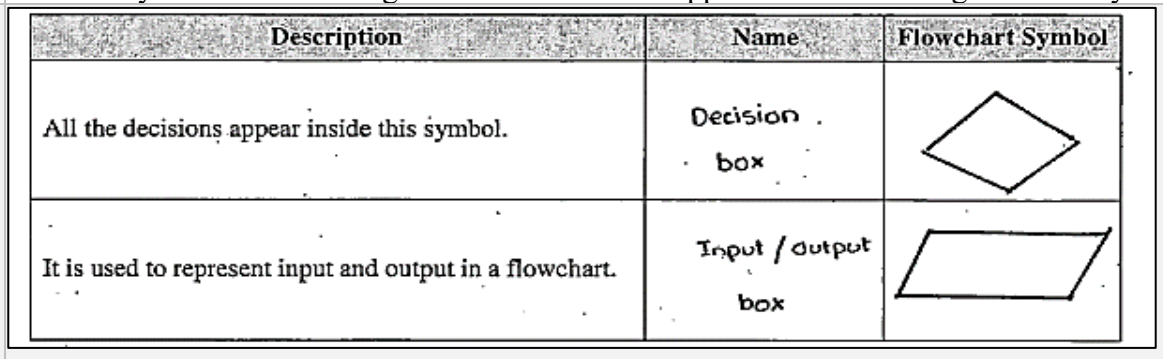
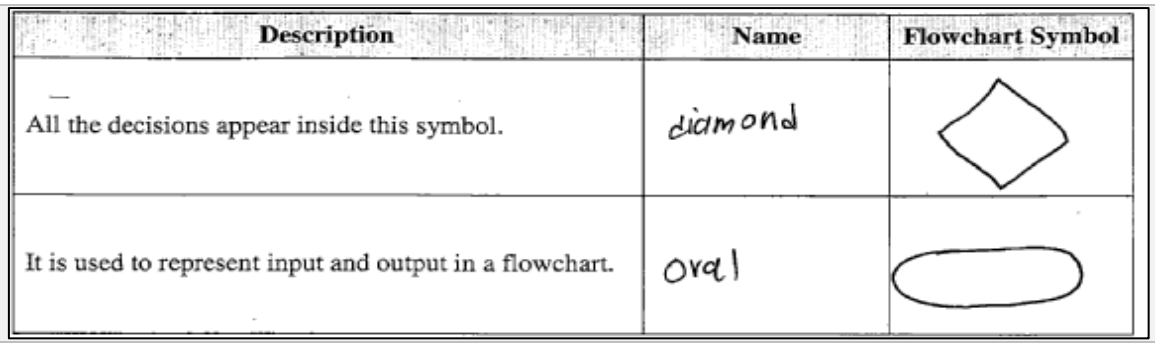
<table>
<tr><th colspan="2">Question No. 1</th></tr>
<tr><td>Question Text</td><td>Write the name and draw the flowchart symbol in front of each description in the given table.
<table>
<tr><th>Description</th><th>Name</th><th>Flowchart Symbol</th></tr>
<tr><td>All the decisions appear inside this symbol.</td><td></td><td></td></tr>
<tr><td>It is used to represent input and output in a flowchart.</td><td></td><td></td></tr>
</table></td></tr>
<tr><td>SLO No.</td><td>7.3.3</td></tr>
<tr><td>SLO Text</td><td>Identify the flowchart symbols for the following: a. input b. process c. decision making d. outputs e. terminator/ terminal point f. connectors;</td></tr>
<tr><td>Max Marks</td><td>2</td></tr>
<tr><td>Cognitive Level</td><td>Understanding</td></tr>
<tr><td>Checking Hints</td><td>1 mark for each correct identification of name and symbol (TWO required).
1 mark will be awarded if only names are written.
1 mark will be awarded if only symbols are drawn.</td></tr>
<tr><td>Overall Performance</td><td>The question was well answered by the candidates. Most of the candidates correctly identified the symbols and drew them.</td></tr>
<tr><td>Description of Better Responses</td><td>In better responses, candidates accurately identified and placed the correct names and corresponding symbols by using the descriptions. For example, in the description ‘All the decisions appear inside this symbol’, candidates wrote the name decision box and drew a diamond symbol in their respective columns. Similarly, in the description ‘it is used to represent input and output in a flowchart’ candidates wrote the name input/ output box and drew a parallelogram symbol in their respective columns. These candidates showed familiarity with standard diagram conventions and applied their knowledge effectively.</td></tr>
<tr><td>Image of Better Response</td><td> 
</td></tr>
<tr><td>Description of Weaker Responses</td><td>In weaker responses, it was observed that candidates often managed to write either the correct name or the correct symbol, but not both. A common error was the incorrect identification of shapes, with many candidates labelled parallelograms and diamonds as names rather than recognising their symbolic meaning. In several cases, candidates were unable to identify either the correct name or the corresponding symbol, indicating a lack of conceptual clarity with standard conventions.</td></tr>
</table>

Image of Weaker Response	

Description	Name	Flowchart Symbol
All the decisions appear inside this symbol.	diamond	
It is used to represent input and output in a flowchart.	oval	

Suggestions for improvement (Highlight all that apply)

Maximising SLO Achievement	Preferred Pedagogy** Used for this SLO	Assessment Strategies
• Identify the expectation of command words (use Command Word Guide) • Ensure the content is taught at the relevant cognitive level • Identify necessary content required (skills + concepts) • Review past paper questions on the concept • Utilise the resource guide for additional materials	• Story Board • Cause and Effect • Fish and Bone • Concept Mapping • Audio Visual Resources • Think, Pair and Share • Knowledge Platform videos • Questioning Technique (Socratic approach) • Practical Demonstration	• Past paper questions • Discussion on E-Marking Notes • AKU-EB Digital Learning Solution powered by Knowledge Platform https://akueb.knowledgeplatform.com/login

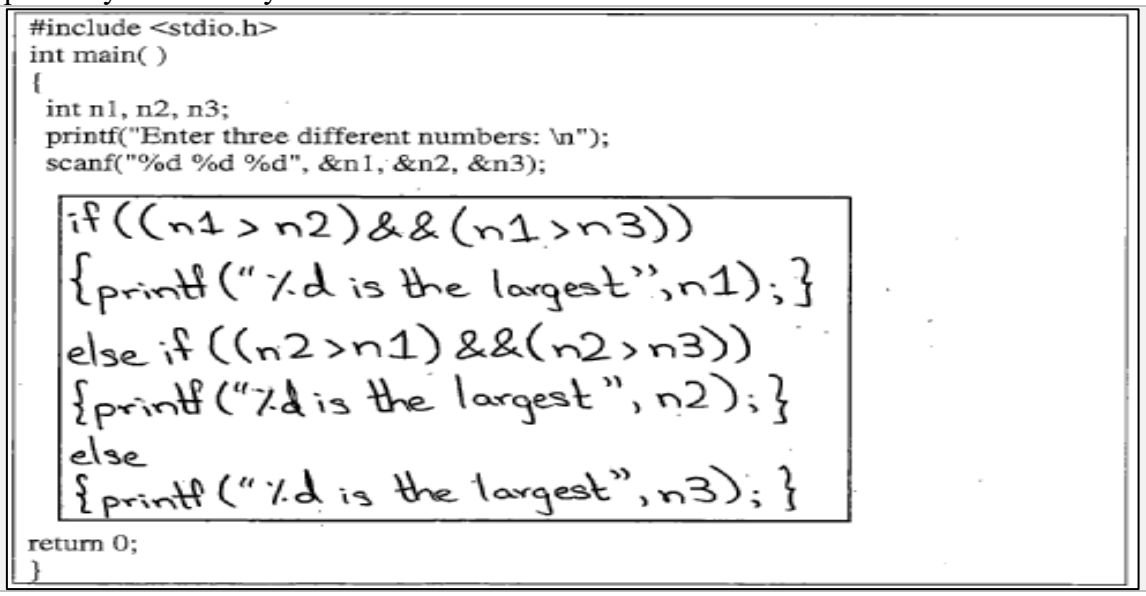
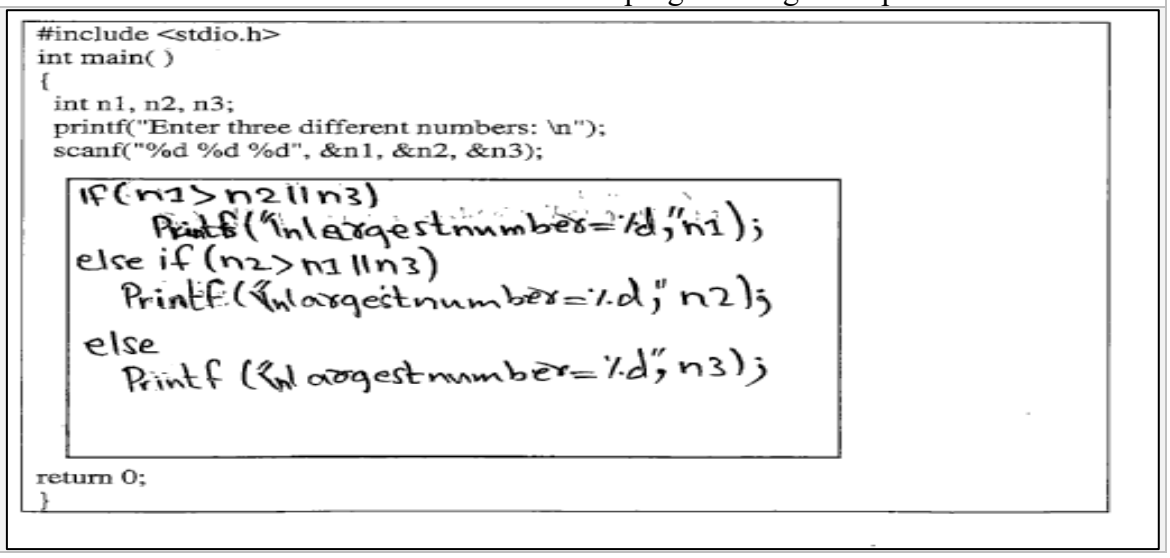
Any Additional Suggestion: Teachers are recommended to encourage candidates to pay attention to the command words as well as focus on improving students' conceptual clarity through clear explanations and real-life examples related to the topic. Incorporating visual aids, such as diagrams and flowcharts, can help candidates better understand and differentiate between names and symbols.

Question No. 2	
Question Text	A 'C' program is written to take three integers with different values as an input and identify the largest number amongst them. Write the missing code in the given box to achieve the mentioned task.

```
#include <stdio.h>
int main( )
{
  int n1, n2, n3;
  printf("Enter three different numbers: \n");
  scanf("%d %d %d", &n1, &n2, &n3);

return 0;
}
```

SLO No.	10.1.8

SLO Text	Write C programs for the problems mentioned in 7.2.3 involving the use of if-else-if statements.
Max Marks	3
Cognitive Level	Application
Checking Hints	Give ONE mark for writing each conclusion (THREE required).
Overall Performance	The candidates attempted the question effectively, and many candidates completed the required task. However, some candidates compared only two numbers or used incorrect operators. A few candidates unnecessarily attempted to use a loop for this question.
Description of Better Responses	*In better responses*, candidates accurately compared all three numbers by using the if-else-if structure and printed the largest number. For example, 1st number with the other two numbers, similarly, 2nd number, and 3rd number with the other two numbers. Their code demonstrated a solid understanding of conditional logic, and the syntax was written precisely without any errors.
Image of Better Responses	
Description of Weaker Responses	*In weaker responses*, candidates used incorrect comparison operators, leading to flawed logic, and failed to include the third variable in their comparisons or used improper syntax for statements such as printf, if, and else-if. In several cases, it was evident that candidates lacked a clear understanding of how to apply conditional statements correctly, indicating a need for further reinforcement of fundamental programming concepts.
Image of Weaker Responses	

Suggestions for improvement (Highlight all that apply)

Maximising SLO Achievement	Preferred Pedagogy Used for this SLO	Assessment Strategies
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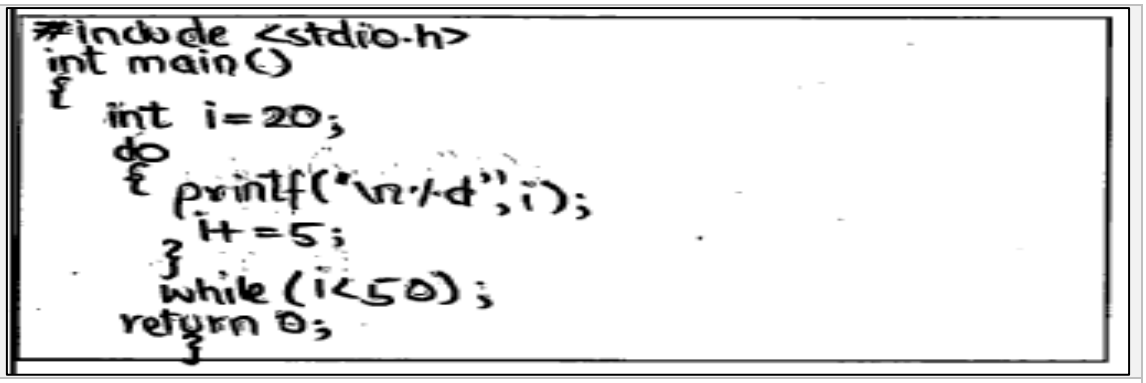
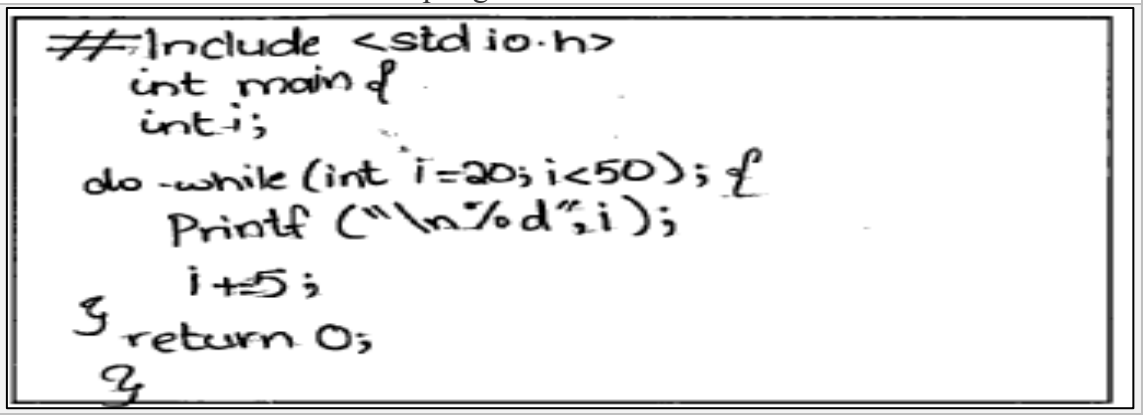
Any Additional Suggestions:
Teachers are encouraged to conduct regular practical sessions to help candidates strengthen their understanding of programming concepts through hands-on experience. Additionally, focused practice on structuring and implementing if-else-if conditions will help candidates to develop confidence and accuracy in writing decision-making code.

Question No. 3	

Question Text	Convert the following for loop into do-while loop.
	`for (int i=20;i<50;i+=5)`
	`printf("\n%d", i);`

SLO No.	11.1.6
SLO Text	Write the **do-while** loop structure in C language.
Max Marks	3
Cognitive Level	Application
Checking Hints	**1 mark** for initialisation of counter variable. **1 mark** for writing the correct condition using a do-while statement. **1 mark** for writing the correct increment statement. Note: No mark deduction if the increment is done anywhere inside the body of the loop
Overall Performance	The overall response to this question was not satisfactory. It highlighted the need for candidates to develop a deeper understanding of loop structures, particularly while and do-while loops. Many candidates appeared unfamiliar with the correct syntax for the do-while loop.
Description of Better Responses	*In better responses,* candidates correctly applied the do-while structure to the given for loop code. They initialised the counter variable before the loop, placed the print and increment statements within the body of the do-while loop, and appropriately applied the loop condition outside the braces using the while( ) statement.

Image of Better Response	
Description of Weaker Responses	*In weaker responses*, candidates were confused regarding the structure of the do-while loop. They initialised the counter variable inside the loop body and placed the increment statement outside the loop, which led to logical errors in execution. A significant number of responses also showed that the candidates directly copied the syntax of a for loop into a do-while construct without adapting it to the correct format.
Image of Weaker Response	

Suggestions for improvement (Highlight all that apply)

Maximising SLO Achievement	Preferred Pedagogy Used for this SLO	Assessment Strategies
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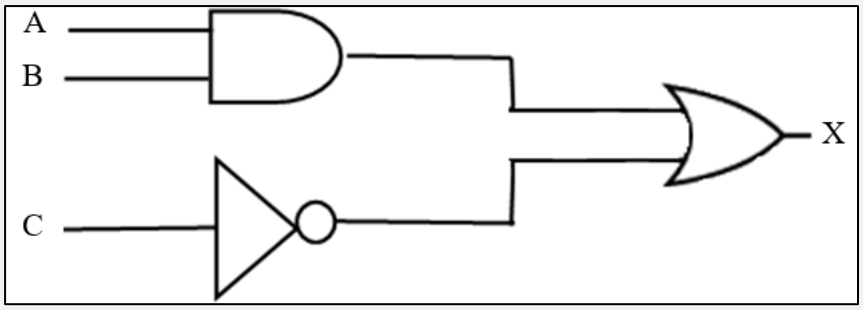
Any Additional Suggestions:
Teachers are suggested to conduct practice sessions on all three loop types, as candidates struggle with while and do while loops. They can practice inter-conversions of one loop structure to another loop structure.

<table>
<tr><th colspan="2">Question No. 4</th></tr>
<tr><td>Question Text</td><td>Consider the following logic circuit.
 

i. Write the logic expression to represent the given logic circuit.
ii. Fill the given truth table for this problem.
<table>
<tr><th>A</th><th>B</th><th>C</th><th>X</th></tr>
<tr><td>0</td><td>0</td><td>0</td><td></td></tr>
<tr><td>0</td><td>0</td><td>1</td><td></td></tr>
<tr><td>0</td><td>1</td><td>0</td><td></td></tr>
<tr><td>0</td><td>1</td><td>1</td><td></td></tr>
<tr><td>1</td><td>0</td><td>0</td><td></td></tr>
<tr><td>1</td><td>0</td><td>1</td><td></td></tr>
<tr><td>1</td><td>1</td><td>0</td><td></td></tr>
<tr><td>1</td><td>1</td><td>1</td><td></td></tr>
</table></td></tr>
<tr><td>SLO No.</td><td>12.2.7 and 12.2.6</td></tr>
<tr><td>SLO Text</td><td>Construct logic circuit to solve a given real-life problem; & construct a truth table for logic circuits.</td></tr>
<tr><td>Max Marks</td><td>5</td></tr>
<tr><td>Cognitive Level</td><td>Application</td></tr>
<tr><td>Checking Hints</td><td>1 mark for correctly writing a logical expression
4 marks for correctly filling the truth table (1 mark will be given to fill two possible outputs)
Note: round off marks to the nearest whole number</td></tr>
<tr><td>Overall Performance</td><td>It was observed that candidates performed satisfactorily on this question. Many of the candidates responded proficiently by accurately writing the required expression and presenting a correct and well-structured truth table.</td></tr>
<tr><td>Description of Better Responses</td><td>In better responses, candidates accurately wrote the correct logical expression. They correctly identified the logic gates and combined the variables with logic gate symbols given in the circuit diagram. Also, they correctly applied the method that solved the truth table and determined the correct output of the truth table. They successfully generated all eight possible input combinations.</td></tr>
</table>

Image of Better Response

i. Write the logic expression to represent the given logic circuit.

$X = AB + \overline{C}$

ii. Fill the given truth table for this problem.

A	B	C	X	AB	$\overline{C}$
0	0	0	1	0	1
0	0	1	0	0	0
0	1	0	1	0	1
0	1	1	0	0	0
1	0	0	1	0	1
1	0	1	0	0	0
1	1	0	1	1	1
1	1	1	1	1	0

Description of Weaker Responses

In weaker responses, it was observed that some candidates struggled to provide the correct logical expression and were unable to accurately complete the truth table for the given circuit. For example, they wrongly identified or put the wrong symbol of the logic gate(s) that led to the incorrect logical expression. While a few candidates managed to write the correct expression, but they failed to fill in the truth table correctly. Additionally, some responses included incorrect variable names or used improper logical operators.

Image of Weaker Response

i. Write the logic expression to represent the given logic circuit.

$x = A + B + \overline{C}$.

ii. Fill the given truth table for this problem.

A	B	C	X
0	0	0	1
0	0	1	1
0	1	0	1
0	1	1	1
1	0	0	1
1	0	1	1
1	1	0	1
1	1	1	0

Suggestions for improvement (Highlight all that apply)

Maximising SLO Achievement	Pedagogy Used for that SLO	Assessment Strategies
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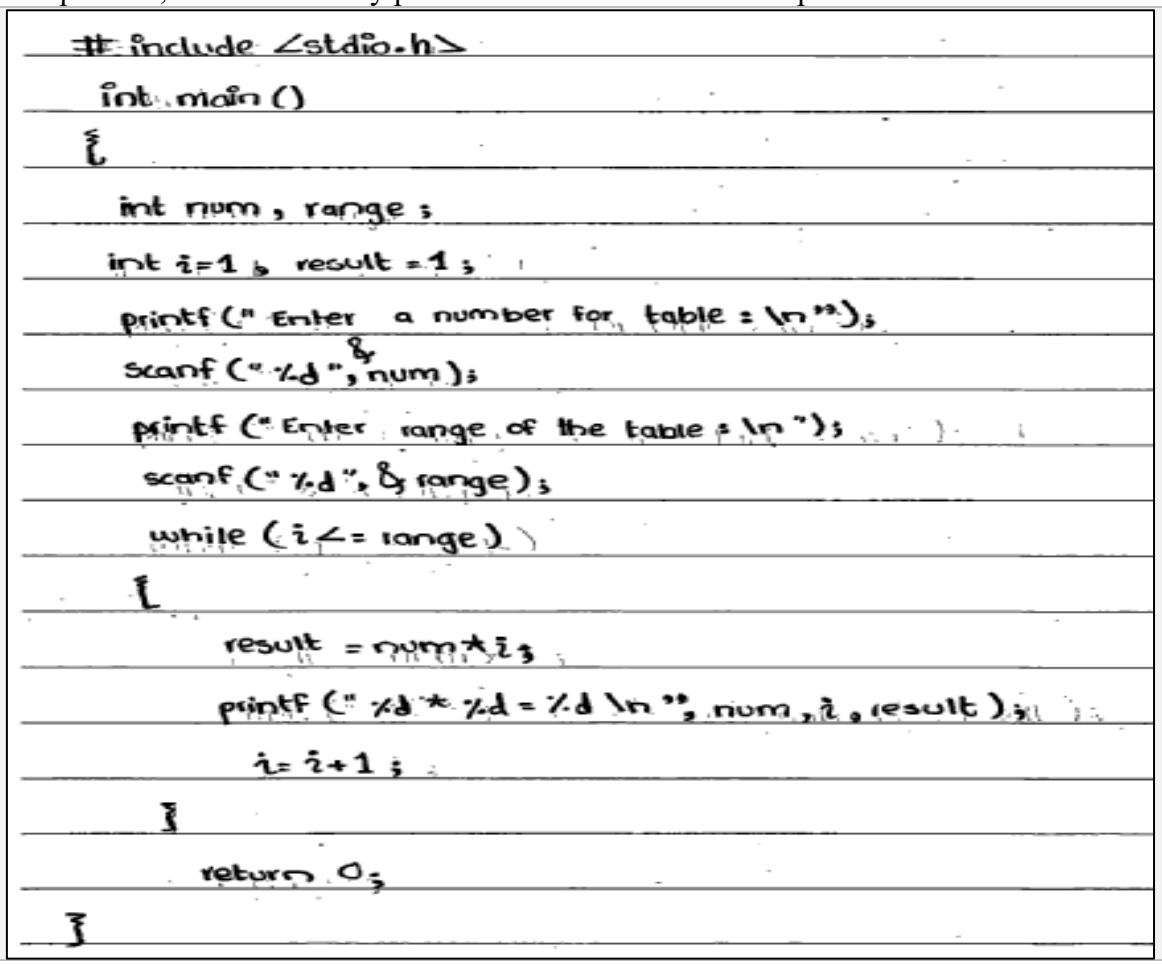
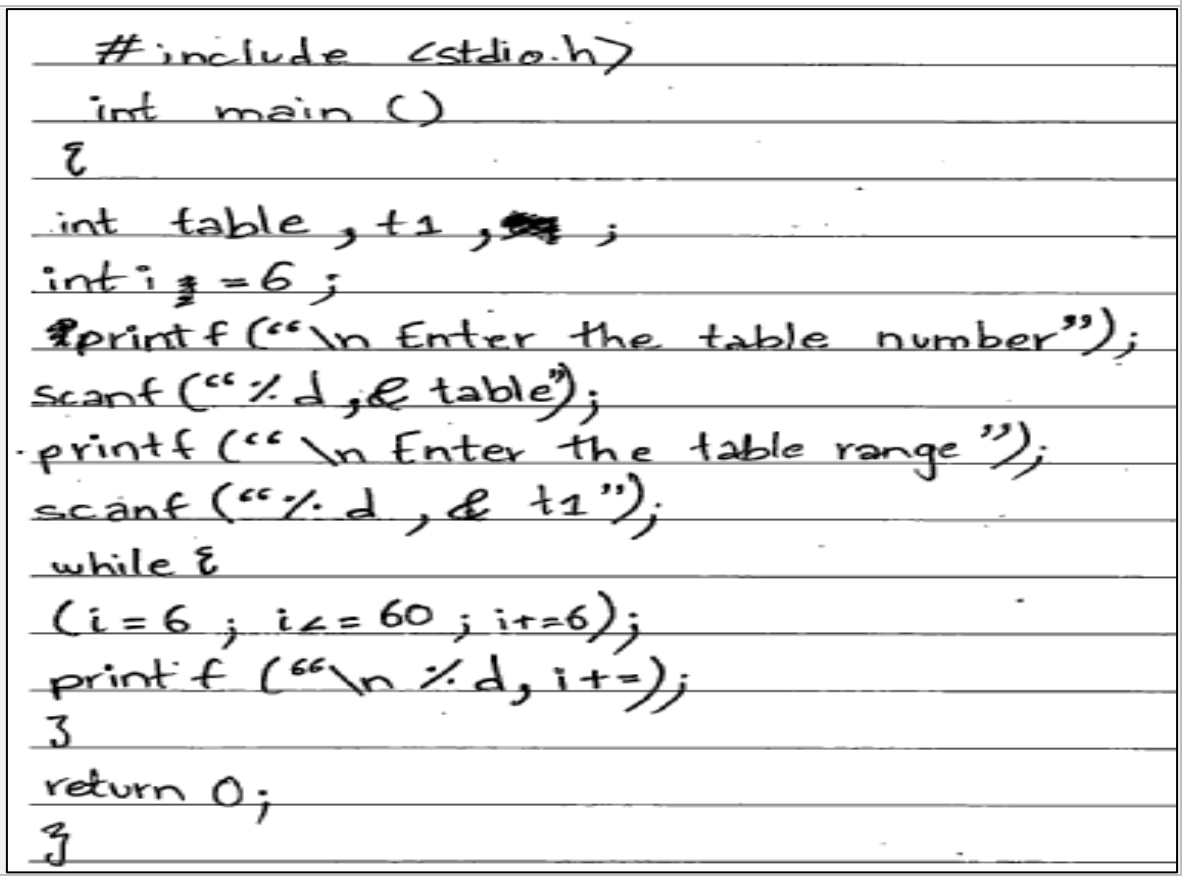
Any Additional Suggestion: To improve performance on such questions, candidates require more extensive practice in circuit design and constructing corresponding truth tables. Teachers are encouraged to regularly provide candidates with various logic circuits and guide them in deriving the correct logical expressions as well as completing accurate truth tables.

Extended Response Questions (ERQs)

Extended response questions offered a choice between parts ‘a’ and ‘b’

Question No. 5a	
Question Text	Write a ‘C’ program to take table number and range as an input and print the table of inputted number till the inputted range using while loop.
SLO No.	11.1.6
SLO Text	Write the do while loop structure in C language;
Max Marks	06
Cognitive Level	Application
Checking Hints	1 mar1 mark for declaring correct variables. 1 mar1 mark for taking input. 1 mar1 mark for writing the correct condition of the while loop. 1 mar1 mark for writing the formula for calculating multiple. 1 mar1 mark for the increment in the counter variable. 1 mar1 mark for writing the output.
Overall Performance	The candidates who attempted Question 5(a) of the ERQ generally performed fairly well, demonstrating a reasonable understanding of the basic logic required. However, several common issues, such as incorrect loop syntax, faulty logic, and wrong calculation and formatting issues, were observed in the weaker responses.
Description of Better Responses	*In better responses*, candidates demonstrated a clear understanding of how to generate a multiplication table. They correctly took all required inputs, including the number and the range, applied the correct formula to calculate the multiplication of numbers as specified in the question, and successfully printed the times table in the expected format.
Image of Better Response	

```c
#include <stdio.h>
int main()
{
    int num, range;
    int i=1, result=1;
    printf("Enter a number for table: \n");
    scanf("%d", &num);
    printf("Enter range of the table: \n");
    scanf("%d", &range);
    while (i<=range)
    {
        result = num*i;
        printf("%d * %d = %d \n", num, i, result);
        i= i+1;
    }
    return 0;
}
```

Description of Weaker Responses	*In weaker responses*, candidates struggled with the basic structure of the while loop, used the incorrect syntax that led to compilation errors, or had faulty logic. Many programs received incorrect or incomplete inputs and frequently misused the printf and scanf functions, which affected both the functionality and output format of their programs. Additionally, some candidates applied an incorrect formula for multiplication or improperly initialised the counter variable, which resulted in an inaccurate or incomplete multiplication table.
Image of Weaker Response	

```
#include <stdio.h>
int main ()
{
int table , t1 , ;
int i =6 ;
printf ("\n Enter the table number");
scanf ("%d ,& table");
printf ("\n Enter the table range ");
scanf ("%d , & t1");
while {
(i = 6 ; i<= 60 ; i+=6);
print f ("\n %d, i+=);
}
return 0;
}
```

Suggestions for improvement (Highlight all that apply)

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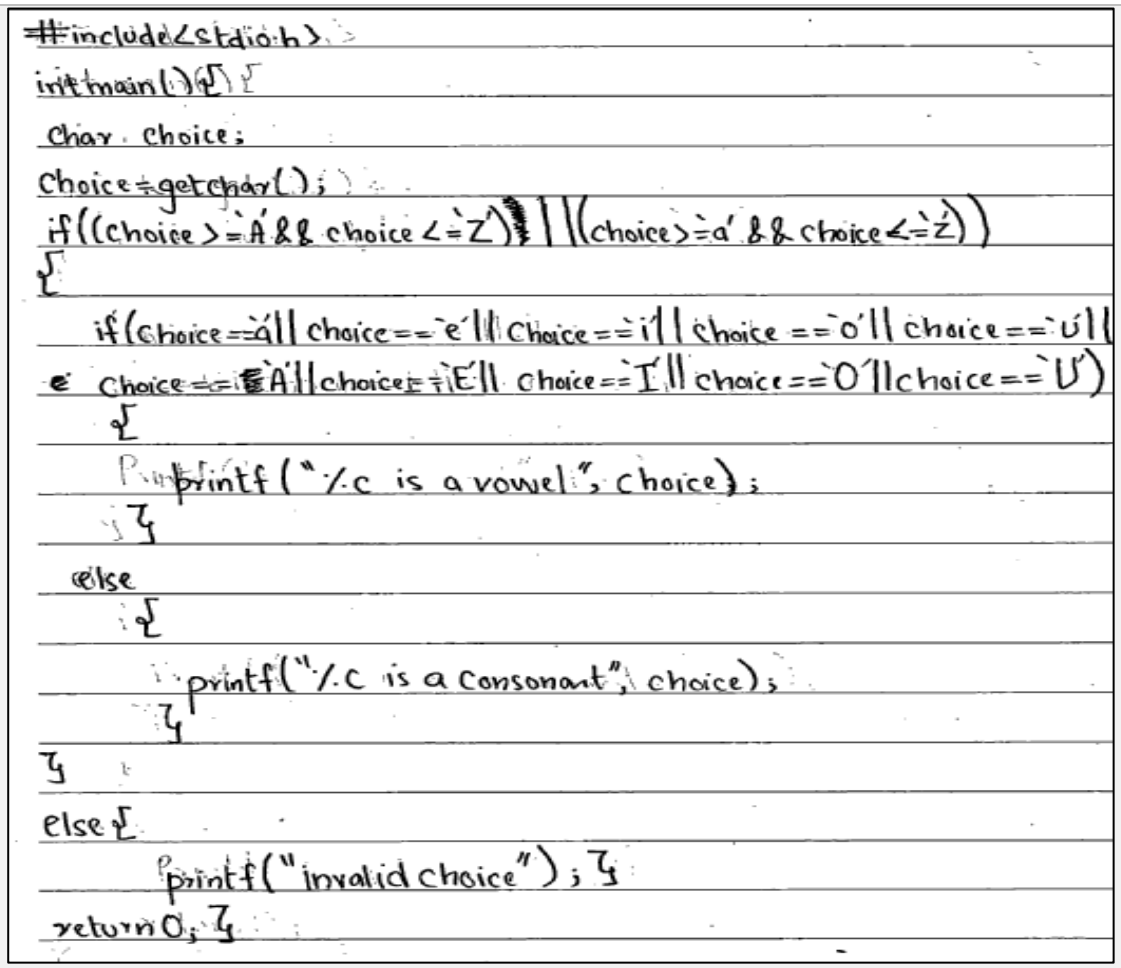
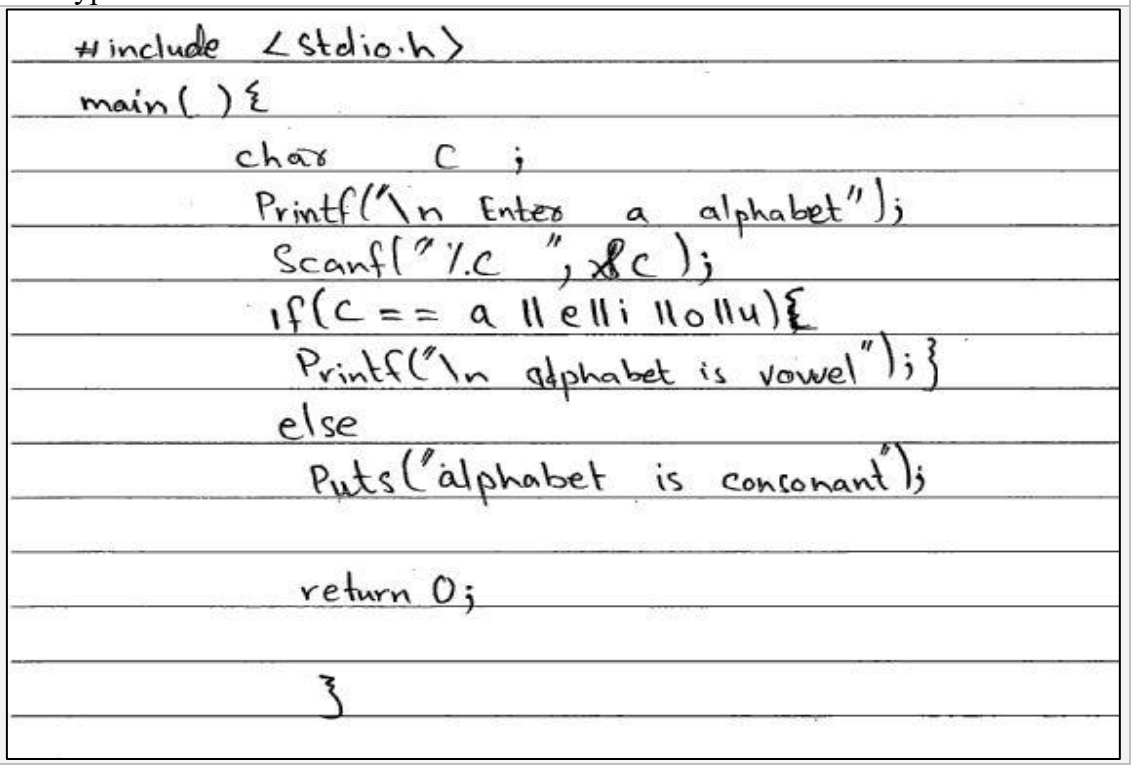
Any Additional Suggestions:
Teachers are encouraged to provide students with regular hands-on practice of practical questions in the computer lab to strengthen their coding skills. Alongside coding exercises, students should also be guided to write algorithms and pseudocode for each program.

Question No. 5b	
Question Text	Write a 'C' program to take a character as an input and print whether the character is a vowel or a consonant.
SLO No.	10.1.8
SLO Text	Write C programs for the problems mentioned in 7.2.3 involving the use of if-else-if statement.
Max Marks	6
Cognitive Level	Application
Checking Hints	**1 mark** for taking input. **1 mark** for printing output **2 marks** for checking vowel using if condition (five operators/ cases required) **1 mark** for checking a consonant **1 mark** for checking invalid character (default in switch)
Overall Performance	Majority of the candidates attempted this question. However, from the ones who attempted this question, the performance was not up to the mark. Only a few candidates successfully implemented conditions to identify vowels and consonants; however, many overlooked the need to handle invalid characters.
Description of Better Responses	*In better responses*, candidates effectively checked whether the input character was a vowel, a consonant, or an invalid character. They applied the correct syntax of if-else statements and compared the input character through relational and logical operators accurately to construct appropriate conditions.
Image of Better Response	

```
#include<stdio.h>
int main(){
char choice;
choice=getchar();
if((choice>='A'&& choice<='Z')||(choice>='a'&& choice<='z'))
{
   if(choice=='a'||choice=='e'||choice=='i'||choice=='o'||choice=='u'||
e  choice=='A'||choice=='E'||choice=='I'||choice=='O'||choice=='U')
   {
    printf("%c is a vowel",choice);
   }
  else
   {
     printf("%c is a consonant",choice);
   }
}
else{
     printf("invalid choice");}
return 0;}
```

Description of Weaker Responses	*In weaker responses*, candidates were unable to correctly identify vowels and consonants, often using incorrect syntax within the if-else structure for condition checking. A common mistake was the improper use of logical operators or missing conditions. Additionally, some students failed to take input correctly by using the int data type instead of char.
Image of Weaker Response	

Suggestions for improvement (Highlight all that apply)

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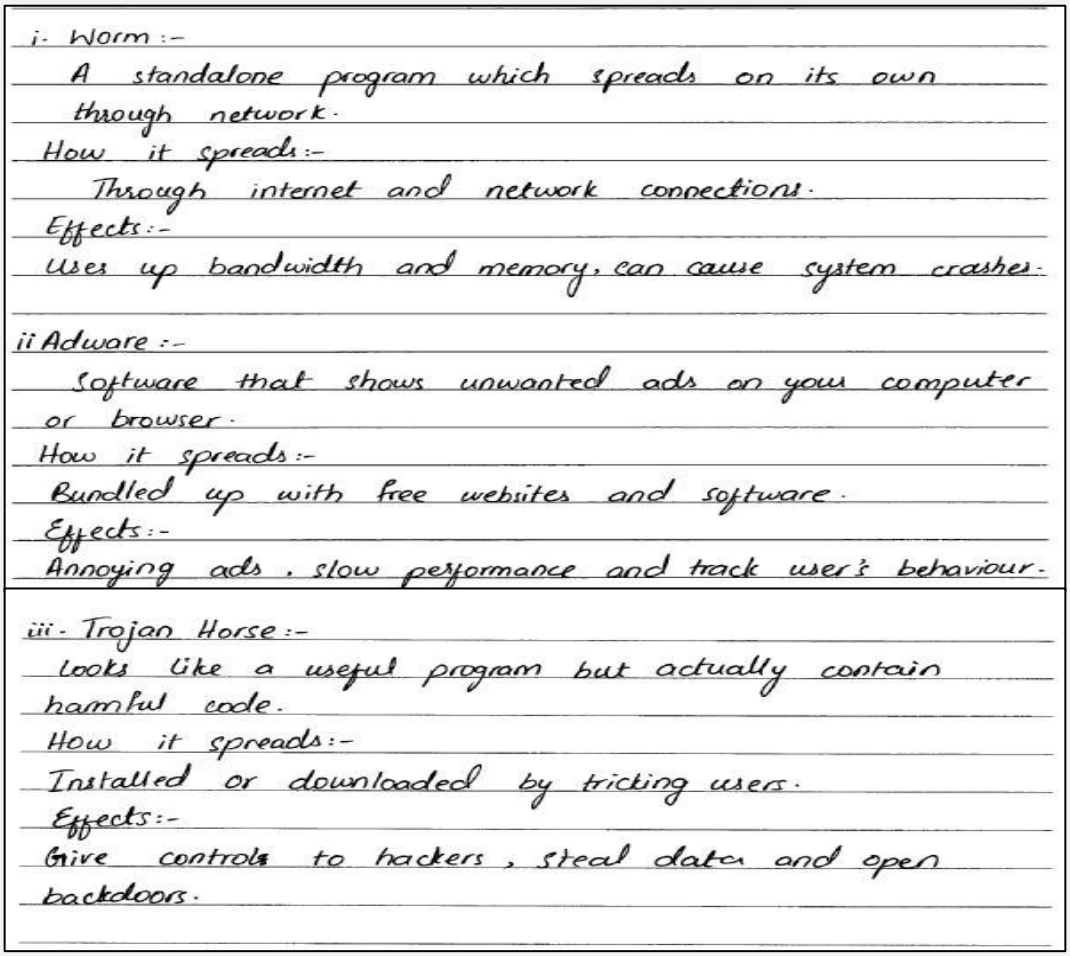
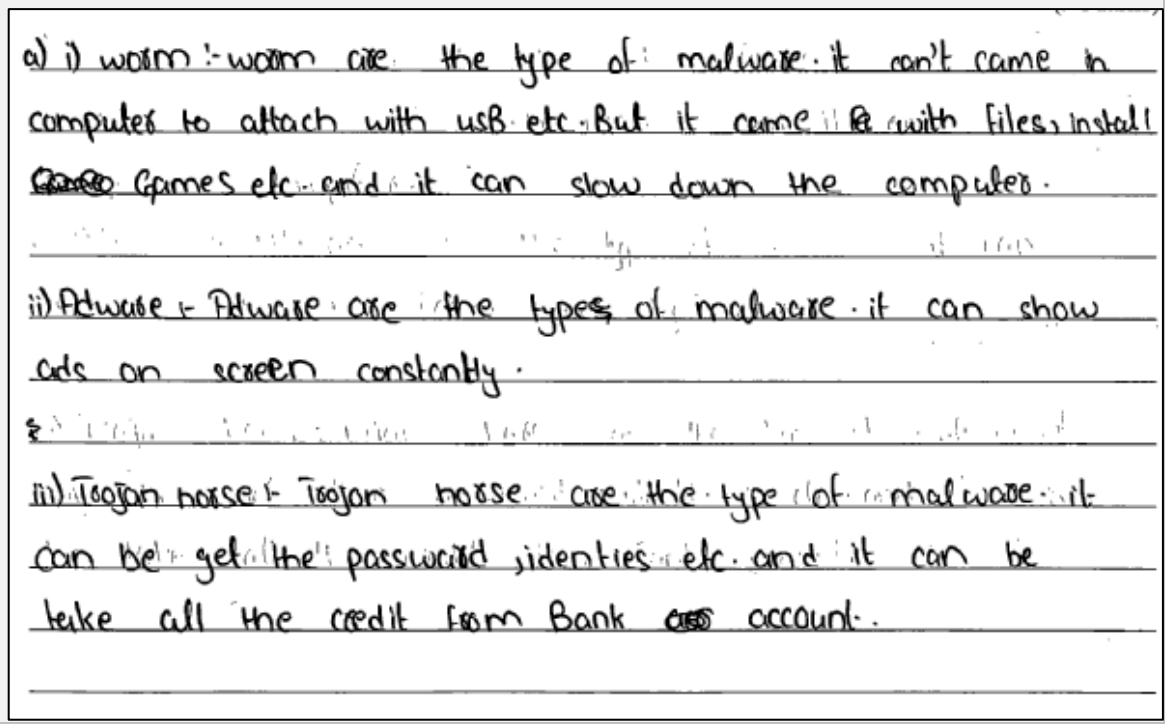
Any Additional Suggestion: Teachers are suggested to provide students with focused practice on the use of the char data type to strengthen their understanding of character handling in programming. In addition, more emphasis should be placed on conditional and control statements, such as if-else and switch, to help students construct accurate logic by practicing example programs in labs and in multimedia classes.

Extended Response Questions (ERQs)

Extended response questions offered a choice between parts 'a' and 'b'

Question No. 6a	
Question Text	Explain the following terms. i. Worm ii. Adware iii. Trojan Horse
SLO No.	14.1.4
SLO Text	Differentiate among the types of malware, i.e., virus, worm, adware, spyware, Trojan horses;
Max Marks	06
Cognitive Level	Understanding
Checking Hints	2 marks for the explanation of each term. (THREE required)
Overall Performance	Though part a of the question was not opted for by the majority, from the ones who attempted it, only some of the candidates demonstrated a clear understanding of the topic. They explained the required terms accurately using the correct definitions supported with suitable examples, whereas others confused the characteristics of malware, missed key points like the self-replication of worms, and gave vague or incorrect statements about adware and Trojans.
Description of Better Responses	*In better responses*, candidates provided clear and well-structured explanations of the terms worm, adware, and Trojan horse. For example, a worm transmits itself over a network to infect other computers. Adware displays advertisements to users. Trojans are covered as legitimate or desirable software to trick users into executing them. They accurately identified the key characteristics of each type of malware, elaborating on how they spread within systems and networks.
Image of Better Response	

Description of Weaker Responses	*In weaker responses*, candidates confused the characteristics of different types of malware and were unable to clearly state the key definitions. For example, in the case of worms, they frequently missed essential points such as the worm's ability to self-replicate and spread automatically across computer networks without user intervention. Adware used to send data to others, and Trojans are used to destroy the computer system. Many responses included only a single, vague point or provided incorrect characteristics.
Image of Weaker Response	

a) i) worm :- worm are the type of malware. it can't came in computer to attach with usB etc. But it came with files, install Games etc and it can slow down the computer.

ii) Adware :- Adware are the types of malware. it can show ads on screen constantly.

iii) Trojan horse :- Trojan horse are this type of malware. it can be get the password identies etc. and it can be take all the credit from Bank account.

Suggestions for improvement (Highlight all that apply)

Maximising SLO Achievement	Preferred Pedagogy Used for this SLO	Assessment Strategies
• Identify the expectation of command words (use Command Word Guide) • Ensure the content is taught at the relevant cognitive level • Identify necessary content required (skills + concepts) • Review past paper questions on the concept • Utilise the resource guide for additional materials	• Story Board • Cause and Effect • Fish and Bone • Concept Mapping • Audio Visual Resources • Think, Pair and Share • Knowledge Platform videos • Questioning Technique (Socratic approach) • Practical Demonstration	• Past paper questions • Discussion on E-Marking Notes • AKU-EB Digital Learning Solution powered by Knowledge Platform https://akueb.knowledgeplatform.com/login

Any Additional Suggestions:
Teachers are encouraged to facilitate classroom discussions or debates focused on the definitions, characteristics, and differences between various types of malware. Engaging students in comparative discussions will help reinforce their understanding and clarify misconceptions, ensuring they can clearly distinguish between threats like worms, adware, and Trojan horses.

Question No. 6b	
Question Text	Describe the following types of hackers. i. Script Kiddie ii. Blue Hat Hacker iii. Red Hat Hacker
SLO No.	14.1.3
SLO Text	Differentiate among the types of hackers, i.e., script kiddies, white hat hackers, black hat hackers, grey hat hackers, green hat hackers, red hat hackers, blue hat hackers.
Max Marks	6
Cognitive Level	Understanding
Checking Hints	**2 marks** each for the description of script kiddie, blue hat hacker, and red hat hacker.
Overall Performance	Majority of the students attempted this question. Yet, the overall performance was not satisfactory. Some candidates succeeded by giving accurate definitions with examples, such as describing script kiddies as lacking technical skills and Blue Hat Hackers as experimenters. However, many showed confusion by mixing up hacker types, especially Blue Hat with Green Hat, and failed to clearly separate ethical from unethical hackers.
Description of Better Responses	*In better responses*, candidates effectively defined the distinct characteristics of the three types of hackers. For example, a script kiddie lacks technical expertise or skills but uses pre-made scripts to conduct cyberattacks. Blue hat hacker is neither a white hat nor a black hat, but experimenting with hacking techniques, demonstrating a clear understanding of how each type differs in intent and behaviour.

Image of Better Response

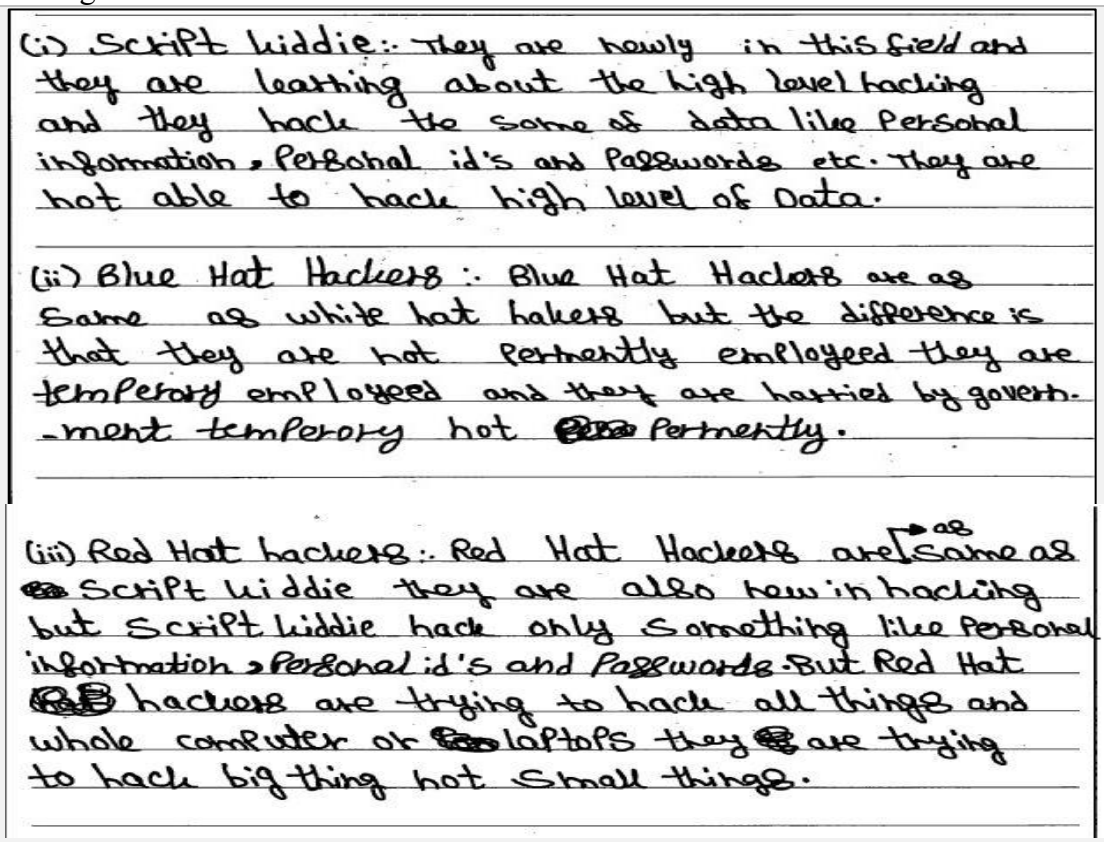
Hackers reffered to those who breach computer system, computer, devices and network with malacious intention or not. All hackers are not harmful, however some of them work in order to help organizations or individual.

TYPES:

i: SCRIPT KIDDIE: Script kiddie is slang for amateur hackers who have lack of experience and technical skills which are required to build up their own hacking programs like phishing and other social engineering programs. So they used other programmer scripted programs for hacking. ~~purpose~~ Inspite of lack of technical skills, they are still dangerous as they often didn't ~~has~~ have knowledge of using script of others.

(ii) Blue Hat hackers: There are two types of Blue hat hackers. The one who work for organizations in order to test their computer systems and finding and removing errors of systems. They are less experienced and don't cause harm to others. However some blue hat hackers also known as revenge seeker are experienced hackers with malicious intention and cause harm to computer systems. They hacked systems in order to take revenge on ~~the~~ whether on the basis of politically or proffessionally. So blue hat hackers may be or may be not dangerous.

(iii) Red hat hackers: Red hat hackers are also known as vigilante hackers. They are motivated by ~~ar~~ lanching attacks against Black hat hackers. They done it by infiltering black hat hackers communities from dark websites and launch aggressive attacks in order to harm their systems. Unlike white hat hackers, they didnot ~~oppressed~~ oppossed voilence and attacks against black hat hackers.

Description of Weaker Responses	*In weaker responses,* candidates did not perform well on this question and struggled to differentiate between the various types of hackers, particularly Blue Hat Hackers. Some confused them with Green Hat Hackers, while others mixed up the definitions of Red Hat Hackers and Black Hat Hackers. Additionally, several responses failed to distinguish between ethical and unethical hackers.
Image of Weaker Response	

(i) Script kiddie:- They are newly in this field and they are learning about the high level hacking and they hack the some of data like Personal information, Personal id's and Passwords etc. They are not able to hack high level of Data.

(ii) Blue Hat Hackers :- Blue Hat Hackers are as same as white hat hakers but the difference is that they are not Permently employeed they are temperory employeed and they are hatried by govern-ment temperory hot Permently.

(iii) Red Hat hackers :- Red Hat Hackers are same as Script kiddie they are also new in hacking but Script kiddie hack only something like Personal information, Personal id's and Passwords. But Red Hat hackers are trying to hack all things and whole computer or laptops they are trying to hack big thing not small things.

Suggestions for improvement (Highlight all that apply)

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Any Additional Suggestion: Teachers can incorporate interactive activities such as role plays, PowerPoint presentations, or group-based class presentations to enhance students' understanding of different types of hackers. By assigning each group a specific type of hacker to research and present as if they were that hacker, students can engage more deeply with the content in a fun and memorable way.

Annexure A: Pedagogies Used for Teaching the SLOs

Pedagogy: Storyboard
Description: A visual pedagogy that uses a series of illustrated panels to present a narrative, encouraging creativity and critical thinking. It helps learners organise ideas, sequence events, and comprehend complex concepts through storytelling.
Example: In a Literature class, students are tasked with creating storyboards to visually retell a novel. They draw key scenes, write captions, and present their stories to the class, enhancing their reading comprehension and fostering their imagination.

Pedagogy: Cause and Effect
Description: This pedagogy explores the relationships between actions and consequences. By analysing cause-and-effect relationships, learners develop a deeper understanding of how events are interconnected and how one action can lead to various outcomes.
Example: In a History class, students study the causes and effects of the Industrial Revolution. They research and discuss how technological advancements in manufacturing led to significant societal changes, such as urbanisation and labour reform movements.

Pedagogy: Fish and Bone
Description: A method that breaks down complex topics into main ideas (the fish) and supporting details (the bones). This visual approach enhances comprehension by highlighting essential concepts and their relevant explanations.
Example: During a Biology class on human anatomy, the teacher uses the fish and bone technique to teach about the human skeletal system. Teacher presents the main components of the human skeleton (fish) and elaborates on each bone's structure and function (bones).

Pedagogy: Concept Mapping
Description: An effective way to visually represent relationships between ideas. Learners create diagrams connecting key concepts, aiding in understanding the overall structure of a subject and fostering retention.
Example: In a Psychology assignment, students use concept mapping to explore the various theories of personality. They interlink different theories, such as Freud's psychoanalysis, Jung's analytical psychology, and Bandura's social-cognitive theory, to see how they relate to each other.

Pedagogy: Audio Visual Resources
Description: Incorporating multimedia elements like videos, images, and audio into lessons. This approach caters to different learning styles, making educational content more engaging and memorable.
Example: In a General Science class, the teacher uses a documentary-style video to teach about the solar system. The video includes stunning visual animations of the planets, interviews with astronomers, and background music, enhancing students' interest and understanding of space.

Pedagogy: Think, Pair, and Share
Description: A collaborative learning technique where students ponder a question or problem individually, then discuss their thoughts in pairs or small groups before sharing with the entire class. It fosters active participation, communication skills, and diverse perspectives.
Example: In a Literature in English class, the teacher poses a thought-provoking question about a novel's moral dilemma. Students first reflect individually, then pair up to exchange their opinions, and finally participate in a lively class discussion to explore different viewpoints.

Pedagogy: Questioning Technique (Socratic Approach)
Description: Based on Socratic dialogue, this method stimulates critical thinking by posing thought-provoking questions. It encourages learners to explore ideas, justify their reasoning, and discover knowledge through a process of inquiry.
Example: In an Ethics class, the instructor uses the Socratic approach to lead a discussion on the meaning of justice. By asking a series of probing questions, the students engage in a deeper exploration of ethical principles and societal values.

Pedagogy: Practical Demonstration
Description: A hands-on approach where learners observe real-life applications of theories or skills. Practical demonstrations enhance comprehension, skill acquisition, and problem-solving abilities by bridging theoretical concepts with real-world scenarios.
Example: In a Food and Nutrition class, the instructor demonstrates the proper technique for filleting a fish. Students observe and then practice the skill themselves, learning the practical application of knife skills and culinary precision.

(**Note:** The examples provided in this annexure serve as illustrations of various pedagogies. It is important to understand that these pedagogies are versatile and can be applied across subjects in numerous ways. Feel free to adapt and explore these techniques creatively to enhance learning outcomes in your specific context.)

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