**AGA KHAN UNIVERSITY EXAMINATION BOARD**

**SECONDARY SCHOOL CERTIFICATE**

**CLASS X**

**ANNUAL EXAMINATIONS (THEORY) 2025**

**Computer Science Paper II**

**Time: 1 hour 50 minutes Marks: 25**



**INSTRUCTIONS**

**Please read the following instructions carefully**.

1. Check your name and school information. Sign if it is accurate.

| **I agree that this is my name and school.**<br>**Candidate's Signature** |
|---|

**RUBRIC**

2. There are SIX questions. Answer ALL questions. Questions 5 and 6 each offer TWO choices. Attempt any ONE choice from each.

3. When answering the questions:

   Read each question carefully.
   Use a black pointer to write your answers. DO NOT write your answers in pencil.
   Use a black pencil for diagrams. DO NOT use coloured pencils.
   DO NOT use staples, paper clips, glue, correcting fluid or ink erasers.
   Complete your answer in the allocated space only. DO NOT write outside the answer box.

4. The marks for the questions are shown in brackets ( ).

5. You may use a simple calculator if you wish.

Q.1. (Total 2 Marks)

Write the name and draw the flowchart symbol in front of each description in the given table.

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

Q.2. (Total 3 Marks)

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;
}
```

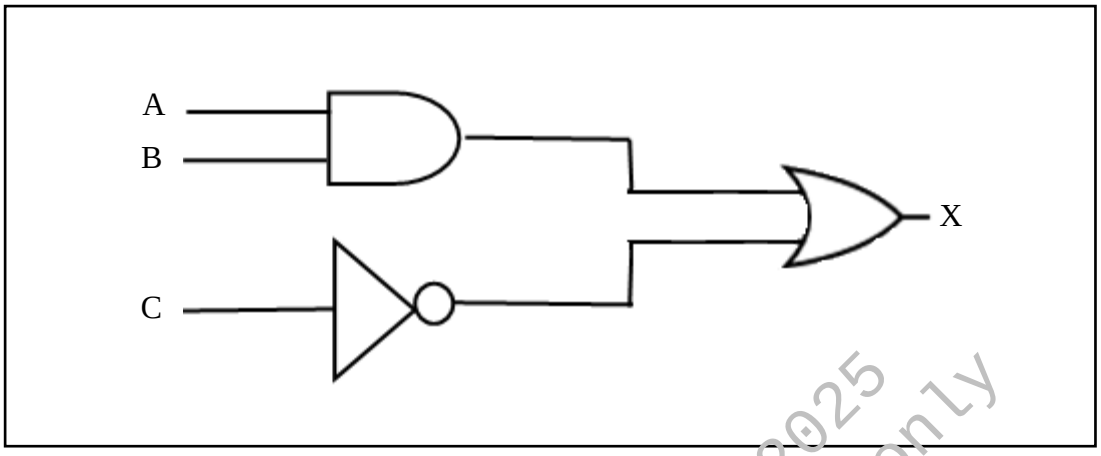
Q.3. (Total 3 Marks)

Convert the following for loop into do-while loop.

```
for (int i=20;i<50;i+=5)
printf("\n%d", i);
```

Q.4. (Total 5 Marks)

Consider the following logic circuit.




i. Write the logic expression to represent the given logic circuit. (1 Mark)

ii. Fill the given truth table for this problem. (4 Marks)

| A | B | C | X |
|---|---|---|---|
| 0 | 0 | 0 | |
| 0 | 0 | 1 | |
| 0 | 1 | 0 | |
| 0 | 1 | 1 | |
| 1 | 0 | 0 | |
| 1 | 0 | 1 | |
| 1 | 1 | 0 | |
| 1 | 1 | 1 | |

Q.5. (Total 6 Marks)

**EITHER**

a. 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.

**OR**

b. Write a 'C' program to take a character as an input and print whether the character is a vowel or a consonant.

Q.6. (Total 6 Marks)

**EITHER**

a. Explain the following terms:

i. Worm (2 Marks)

ii. Adware (2 Marks)

iii. Trojan horse (2 Marks)

**OR**

b. Describe the following types of hackers:

i. Script Kiddie (2 Marks)

ii. Blue Hat Hacker (2 Marks)

iii. Red Hat Hacker (2 Marks)

END OF PAPER

# Please use this page for rough work