2. (a) (i) Name TWO types of user interface. (2 marks)

(ii) State an appropriate input device for EACH interface named in (a) (i) above. (2 marks)

(b) Name the type of menu illustrated in Menu A and Menu B below.

- Menu A -
- Menu B -

(c) (i) Name ONE operating system. (1 mark)

(ii) Explain ONE function of an operating system. (3 marks)

Total 10 marks
3. (a) State the computer term that is described in EACH of the following statements:

(i) Secret information is obtained by spying on competitors or opponents

(ii) A malicious program that is designed to corrupt files on a computer or to cause the computer hardware to malfunction

(iii) The illegal copying of programs

(iv) Using another person's credit card for transactions without his/her permission

(v) Using a computer to alter company data

(b) State the technical term that describes EACH of the types of misuse of data labelled (i), (ii), (iii), (iv) and (v) as underlined in the passage below.

A commercial bank has experienced several security breaches. In one instance, an employee who was interviewed for promotion was not selected because he (i) used emails to mount a vicious attack on a supervisor. Some employees were (ii) electronically accessing other employees' systems without permission. The organization then hired a software expert to install additional software which would be able to (iii) monitor the use of the computers by employees. However, since the installation of the new software, there has been an increase in the rate at which people are able to (iv) access cash from some customers' accounts at the ATM during weekends. The computer system also allows websites to place cookies on the company's computers to (v) collect personal information on certain employees.

Total 10 marks
10. Aliyah wrote the following program.

```
1  Program lesser;
2  Var X, Y: integer;
3
4  Begin
5
6    readln(X, Y);
7    If X < Y
8      Then Writeln ('X is the smaller number')
9      Else Writeln ('Y is the smaller number');
10  End.
```

(a) Aliyah executed the program and input the number 4 for both X and Y.

(i) State the output from the program. (2 marks)

(ii) State the line number that produced the output statement in (a) (i) above. (1 mark)

(iii) The output suggests an error exists. State the name of the type of error. (1 mark)

(iv) State the line number in which the error exists and rewrite the program code that would correct the error. (2 marks)

(v) State the type of structure that is used in lines 7 to 9. (1 mark)

(b) Aliyah wants to modify the program.

(i) Write a statement to initialize the variable X to zero. (2 marks)

(ii) State the line number in which the statement in (b) (i) above could be appropriately inserted. (1 mark)

Total 10 marks
11. Consider the following array named LIST.

<table>
<thead>
<tr>
<th>R</th>
<th>U</th>
<th>T</th>
<th>H</th>
<th>E</th>
<th>R</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
</tbody>
</table>

Rewrite the Pascal statement given below to declare an array called LIST. Replace the letters (A), (B) and (C) with the appropriate term or value.

VAR ______(A)_______: ARRAY [________(B)________] of _______(C)_______;

Total 5 marks

12. Write program statements in PASCAL to do the following:

(a) Write a program header with the name of the program as TOTAL. (3 marks)

(b) Declare a variable named SUM to store whole numbers. (4 marks)

(c) Initialize the variable SUM to give it the value, zero. (4 marks)

(d) Print the value stored in the variable SUM. Ensure that the cursor is placed on the next line. (4 marks)

Total 15 marks

END OF TEST

IF YOU FINISH BEFORE TIME IS CALLED, CHECK YOUR WORK ON THIS TEST.