Instructions to Candidates:
You should have the following for this examination
- Answer Booklet
This paper consists of FIVE questions. Attempt question ONE and any other TWO questions
Maximum marks for each part of a question are as shown
This paper consists of TWO printed pages

Question One (Compulsory)

a) Distinguish between analog computers and digital computers.  

(4 marks)

b) Explain TWO reasons for using secondary storage devices in the computer systems.  

(6 marks)

c) Briefly explain the following categories of programs with one example of each:
   (i) Operating system
   (ii) Word processor
   (iii) Spreadsheet
   (iv) Database management system
   (v) Graphic packages

(10 marks)
d) Define a computer system and outline its application in business. (10 marks)

Question Two

a) Identify the components of the central processing unit and explain how they determine the processing capacity of a computer system. (8 marks)

b) Explain the functions of an operating system outlining different types of operating systems. (10 marks)

c) Describe TWO features of windows desktop. (2 marks)

Question Three

a) Name and briefly explain THREE classifications of computer network based on geographical span. (6 marks)

b) Outline some of the SIX security measures necessary when using computers. (6 marks)

c) Convert the following values to their binary equivalent:

(i) \( 451_{10} \)
(ii) \( 244_{8} \)  

(4 marks)

d) Convert the following to their decimal equivalent:

(i) \( 1011_{2} \)
(ii) \( 946_{16} \)  

(4 marks)

Question Four

a) (i) What is a worksheet grid? (2 marks)

(ii) Differentiate between a manual spreadsheet and an electronic spreadsheet. (4 marks)

b)

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
</tr>
</thead>
<tbody>
<tr>
<td>Item</td>
<td>Price</td>
<td>Quantity</td>
<td>Cost</td>
</tr>
<tr>
<td>1 Screen</td>
<td>7000</td>
<td>20</td>
<td></td>
</tr>
<tr>
<td>2 Motherboard</td>
<td>600</td>
<td>11</td>
<td></td>
</tr>
<tr>
<td>3 Keyboard</td>
<td>250</td>
<td>40</td>
<td></td>
</tr>
<tr>
<td>4 Mouse</td>
<td>150</td>
<td>10</td>
<td></td>
</tr>
<tr>
<td>5 Total</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

(i) What formula function can you enter in Ms Excel to calculate the total for screen in the above table? (1 mark)

(ii) Explain the steps to copy the formula you entered to calculate the rest of the items. (4 marks)

(iii) Explain the procedure of drawing a pie chart for the cost. (4 marks)

Question Five

a) (i) List FIVE symptoms of a computer system that has been affected by a computer virus. (6 marks)

(ii) Differentiate between a virus and a worm outlining the control measures needed to address the threat associated with this. (6 marks)
b) Identify **FOUR** non-conventional devices used to enter data or instructions into the computer system and for each case, explain how the organization can take advantages of the device.

(8 marks)