13. Explain the difference between EACH of the following pairs of terms:

(a) Machine language and high level language
(b) Second generation and fourth generation languages
(c) Pseudocode and trace table
(d) Input and output

(8 marks)

Total 8 marks

14. Consider the following segment of code:

Read X, Y
While (X <> Y) DO
    Print Y
    Y = Y + 1
    Print Y

(a) Explain what is meant by:

(i) <>
(ii) Y=Y +1

(3 marks)

(b) Write an example of a variable from the above segment of the code.

(1 mark)

(c) Use a trace table to determine the output of the code if X=4 and Y=2. Use the headings

<table>
<thead>
<tr>
<th>X</th>
<th>Y</th>
<th>Print Y</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

(1 mark)
15. Explain what is meant by EACH of the following:

(a) Object code
(b) Executing
(c) Test data
(d) Syntax error
(e) Dry run
(f) Debugging

16. Write an algorithm to perform the following sequence of tasks:

(i) Read a number NUM, and a letter LET
(ii) Add 5 to the number NUM and place the result in ANS
(iii) If LET is equal to 'A', then subtract 4 from the number NUM and place the result in ANS
(iv) Print the results of NUM and LET.
17. Copy the labels EX1, EX2, EX3 and EX4 on separate lines on your answer book. Then, write the corresponding example, Name 1 to Name 4, which matches the appropriate label.

EX1: IF weather = 'SUNNY' Then SMILE

EX2: While (ANSWER='Y') DO
      Print 'Yes'
      END DO

EX3: hours > 12

EX4: Grade = Grade + 5

Name1: a logical operation
Name2: an arithmetic operation
Name3: conditional statement
Name4: a loop

(4 marks)

Total 4 marks

END OF TEST