|  |  |
| --- | --- |
| Name |  |
| A Level AQA Computer Science Paper 1    Electronic Answer Document (EAD)  **Instructions**   Enter your name in the box at the top of this page   Answer **all** questions by entering your answers into this document   Remember to **save** this document regularly   Save and print this document and any additional pages   Answer **all** questions   The marks available for each question are shown in brackets   You will need:  □ access to a computer  □ access to a printer  □ access to appropriate software  □ electronic copies of the required skeleton code  □ EAD (Electronic Answer Document) | |

|  |
| --- |
| Section A -Written Questions  Answer all questions.  Remember to save this document regularly. |

|  |  |  |
| --- | --- | --- |
| **Q** | **Answer** | *Mark  (leave blank)* |
| A1 | 1 |  |
| A2 | 17 |  |
| A3 | Recursion is when a program / function is repeatedly executed in a loop. |  |
| A4 | Because ! is not a valid syntax, it is "not" |  |
| A5 | Because it is equaling the i+1 to itself which causes all numbers in the list to be the same. And it does not have a end to the loop. |  |
| A6 | Logic error. It is setting the numbers to the same number. |  |
| A7 | Making sure user error does not break the program. It is necessary so the program doesnt crash. |  |
| A8 | A divide and conquer algorithm is when a list is split up into pieces and ordered and fixed in smaller segments and slowly put pack together. |  |
| A9 | Bubble sort is O(n^2) and merge sort is O(n log(n)) |  |
| A10 |  |  |

|  |
| --- |
| Section B - Programming Tasks  Answer all questions.  Remember to save this document regularly. DO NOT SCREENSHOT CODE |

|  |  |  |
| --- | --- | --- |
| **Q** | **Answer** | *Mark  (leave blank)* |
| B1 | while not sorted: |  |
| B2 | sorted = True  for i in range(length - 1): |  |
| B3 | temp = sortList[i]  sortList[i] = sortList[i+1]  sortList[i+1] = temp  sorted = False |  |
| B4 | integer = False  while not integer:  try:  print("Add an integer number to the list: ")  numList.append(int(input()))  integer = True  except:  print("Please use an integer.")  integer = False |  |
| B5 | Done |  |
| B6 |  |  |
| B7 |  |  |
| B8 |  |  |
| B9 |  |  |