INSTRUCTIONS TO CANDIDATES

Use black ink or black ball-point pen.

Write your name, centre number and candidate number in the spaces at the top of this page.

Answer all questions.

Answers should be written in the spaces provided. Where the space is not sufficient for your answer use a continuation sheet, taking care to number the continuation correctly.

The intended marks for questions or part questions are given in brackets [ ]. You are advised to divide your time accordingly. The total number of marks available is 80.

You are reminded of the necessity for good written communication and orderly presentation in your answers.

Quality of written communication will be assessed in question 8(a).

Make sure you hand in your spreadsheet with this booklet at the end of the examination.
1. Define the terms *Data*, *Information* and *Knowledge*. Use an appropriate example to demonstrate the relationship between each of the terms. [6]
2. (a) Good quality information is needed to make informed decisions. Describe four characteristics of good quality information.

(b) There are financial costs involved in getting good quality information. State two other costs and, giving a different example for each, show how these costs can rise.
3. The quality of data can often be improved by the use of validation techniques. Describe two distinct types of validation technique that can be used and for each technique you describe, give an example of the error it is designed to prevent. [4]
4. (a) Web pages are now being produced by lots of people at home. Explain the following terms in relation to web authoring, giving suitable examples in each case:

(i) Hyperlinks,  

(ii) Frame.  

(b) Discuss the benefits of using HTML to design web pages.
5. People and organisations are very concerned about the increasing use of computers for criminal purposes. Discuss with reference to suitable examples how legislation covering the use of computers has been used to try and address these concerns. Your answer must include the names of the Acts you refer to. [6]

(a) Other than sharing *peripherals* and *email*, describe **three** benefits that using a computer network gives the hospital network manager. [3]

(b) A hospital uses an Intranet.

Define the term *Intranet* and describe **one** advantage to the hospital of having an Intranet. [2]
7. Business is becoming more reliant on ICT.

(a) Describe in detail what is meant by EFT. [2]

(b) Describe what is meant by EPOS and discuss the benefits of EPOS for the retailer. [5]
8. (a) Schools and colleges use ICT to register pupils. Describe three different computer based methods of registration used in schools and colleges and discuss, in general, the advantages computer based registration systems give the school or college. State a specific different disadvantage for each of your chosen methods. [10]
(b) Describe **three** different uses of computers for *Teaching and Learning*, giving different advantages and disadvantages for these uses. [8]
SECTION B

Answer all questions.

9.  
   (a) Describe what is meant by *simulation modelling*.  [1]

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   (b) Describe the advantages and disadvantages of using *simulation modelling* in car crash analysis.  [3]

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YOU MUST REFER TO YOUR OWN SPREADSHEET TO ANSWER THE FOLLOWING QUESTION.

IF NO SPREADSHEET EVIDENCE IS SUBMITTED THEN NO MARKS CAN BE AWARDED.

MAKE SURE THAT YOU SHOW IN YOUR ANSWER WHERE THE PROCESSES, FUNCTIONS/FORMULAS CAN BE FOUND IN YOUR SPREADSHEET.
FOR EXAMPLE PAGE 6 CELL D4.

10. (a) Describe the purpose or function of one formula from list A and two different formulas from list B, which you have used in your spreadsheet. [6]

A: SUM, COUNT, MAX, MIN, AVERAGE, RAND
B: Single IF, Multiple IF, DATE, ROUND
(b) Describe the way you used a **VLOOKUP** function (or its variations) in your spreadsheet, giving one advantage and one disadvantage of using this function in your spreadsheet.

(c) Describe one method of **validation error trapping** used in your spreadsheet.
(d) (i) Describe a **SORT** used in your spreadsheet and state why you required the data to be sorted. [2]

(ii) Describe a **GRAPH** used in your spreadsheet and the reason you put the data in the form of a graph. [2]