



# ICM

MARCH 2016

GENERAL PURPOSE SOFTWARE

**Instructions to candidates:**

- a) Time allowed: Three hours (plus an extra ten minutes' reading time at the start – do not write anything during this time)
  - b) Answer any FOUR questions
  - c) Each question carries 25 marks. Marks for sections of questions are shown in [ ]
  - d) Mark allocations should determine the length of your answers and the time you spend on each part. Generally, ONE valid point scores ONE mark
  - e) Ensure that you pay particular attention to words underlined, in CAPITALS or in **bold**. FEW OR NO MARKS will be awarded to any question where these are ignored
  - f) Where you are asked HOW to achieve a particular result using a named package, explain in general terms how it is achieved rather than listing particular keys to be pressed, which will vary from package to package, i.e. 'Mark the sentence from start to end' rather than 'Press F4'
  - g) You are advised to read an entire question before answering any part of it
  - h) No computer equipment, books or notes may be used in this examination
1. Suppose that you wanted to create a database holding details of all your family and friends so that you could use it to extract details such as name, full address, telephone number, birthday, email address, favourites (e.g. colour/type of music ...) etc.
- a) Draw up a TABLE showing the fields necessary for the highlighted information. You may need MORE than 6 fields for these 6 sets of information. Consider the intended use of this file – such as the need to use the data to address envelopes automatically when sending letters/cards.  
For EACH field in your table, state:
    - field name
    - data type
    - reason for this choice of data type
    - typical example of the data[12]
  - b) Explain how you would first create the structure for this database. [4]
  - c) You wish to send a greetings card to selected people listed in the file. Explain how you could print a list of all people, with their birth dates, who have birthdays in the month of August. [4]
  - d) At a later date, you wish to add a new field (relation) which might contain for instance: 'friend', 'business' for work colleagues or 'aunt' for family.  
Explain how to add this additional field and also to enter a value for each person in the file. [5]
2. Answer this question with regard to a word processing package. State the name of the program you are describing.
- a) Define the terms **headers** and **footers** as used within a word processing package. Describe how both may be implemented. Explain why one of them might include a variable quantity. [5]
  - b) Commonly used phrases such as one's name or company name can be added to a document simply by pressing one or two keys. Explain in detail HOW to instruct the word processing program to achieve this. [5]
  - c) It is required to display the middle part of a document with a different font and point size from the rest of the text. Explain how to achieve this. [5]
  - d) A previously created document is loaded from a file. It contains some underlined words and some emboldened words. Explain how the WORD PROCESSING PROGRAM is able to detect that such text needs to be displayed differently from the rest of the text. [5]
  - e) Explain how to include a table created as a spreadsheet file into the middle of a word processing document. [5]

*continued overleaf*

3. Describe the features available in the Windows™ operating system for the following:
- a) Creation of icons
  - b) Menus
  - c) Cut and paste
  - d) Desktop facilities
  - e) Time and date facilities [5 each]
- 4.
- a) State the hardware needed to make full use of a graphics package. [4]
  - b) Name a particular graphics package and explain FULLY how to draw a circle so that it is the correct size and in the correct position. [5]
  - c) Describe OTHER facilities available within this package. Avoid trivial features. [10]
  - d) Discuss the advantages of using a graphics package over the traditional method used by draughtsmen to produce drawings by hand on a large drawing board. [6]
- 5.
- a) List and explain the advantages of using a database package in preference to writing special programs to process commercial data. [8]
  - b) A technical author specialises in writing articles for magazines and books about developments in computing. He has written hundreds over the years, some of which were not accepted by a publisher. For those accepted, he has to make formal claims for payment. He uses a database to hold outline details of all articles written and to identify articles which might be used which had previously been rejected. Obviously, in computing, articles which are old would probably not be publishable.
    - i He needs to know that he has been paid in full for articles published. List the fields that would be necessary for EACH article to achieve this. Give your answer in a table with the following headings:
 

Field Name	Data type	Field size	Reason for being there	[8]
    - ii Write a search command or describe how a search could be made to find articles that were NOT published articles. Any article over one year old should NOT be considered. [4]
  - c) The secretary of a club with around 40 members asks your advice on whether or not he should use a computer to control the administration of the club. State FIVE relevant general points which he needs to take into account. [5]