



UNIVERSITY OF CAMBRIDGE INTERNATIONAL EXAMINATIONS  
International General Certificate of Secondary Education

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**COMPUTER STUDIES**

**0420/03**

Paper 3 Alternative to Coursework  
SPECIMEN PAPER

**For Examination from 2011**

**1 hour 30 minutes**

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**READ THESE INSTRUCTIONS FIRST**

There is one compulsory question on this paper.

Each part must be answered in the space provided.

You are advised to spend at least 20 minutes reading the information at the start of question 1 since this information is needed to answer all the sections in this question.

The maximum number of marks is 60.

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This document consists of **10** printed pages and **2** blank pages.

- 1 In this question you are asked to read about an existing manual, paper-based stock control system in a large garage. It is the intention that a computer-based semi-automatic stock control system is introduced as a replacement. You will be given a full description of both the present manual method and the intended new computerised scheme.

#### Description of the existing system

When a customer comes into the garage to buy a spare part for his car, the salesman asks a clerk to go to a filing cabinet where (s)he would be able to locate the appropriate files containing all the necessary part details. The information stored on these paper files includes:

- part number
- part description
- price of the part
- number of items in stock
- minimum re-order level
- details of the suppliers
- location of spare part in the warehouse

The salesman then goes to the warehouse to locate the part. The customer pays for the item and the salesman makes out an invoice and gives one copy to the customer and a second copy is given to a filing clerk. At the end of the day, the clerk processes all the invoices, records the money taken and updates the number of each item in stock. The clerk fills out and sends off the order forms for any items which are running low in number. All transactions are currently carried out on paper and stored in files in several large filing cabinets.

#### Description of the proposed computer-based system

The intention is to replace all the paperwork by introducing a computer-based database which contains all the information described above, but automatically prints out new orders at the end of the day.

A systems analyst is to be employed to review the existing manual method. The analyst will be responsible for drawing up an action plan for the new computer-based system. This will then be designed, tested and implemented. All the necessary documentation will also be produced together with a full evaluation of the system performance 6 months after its introduction.

In the new system, when a customer asks for a part, the salesman pulls up the following information on a computer screen:



(b) Name **three** ways the analyst could gather information about the existing manual system. Explain how each method would be used to gather information.

Method 1: .....

Explanation: .....

.....

.....

.....

Method 2: .....

Explanation: .....

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Method 3: .....

Explanation: .....

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.....

[6]

(c) State **two** items of hardware, other than a computer, that would be suitable for this application. Justify your choice for each item.

Item 1: .....

Reason: .....

.....

.....

.....

.....

Item 2: .....

Reason: .....

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..... [4]

- (d) Draw a systems flow chart to show how the new computer-based system will work. Include: what happens when a customer makes an enquiry, how a part is identified, how the database is updated when a part is sold, how new orders are produced and how a check is made on the daily money taken.

[8]



(ii) Give **three** examples of test data that could be used. Justify your choice.

Example 1: .....

Reason: .....

Example 2: .....

Reason: .....

Example 3: .....

Reason: .....

..... [6]

(g) Describe what items should be included in the User Manual supplied with this new system.

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.....  
.....  
.....  
..... [6]



(h) State **two** methods that could be used to implement this new system. Give a reason for each method chosen.

Method 1 .....

Reason for choice .....

Method 2 .....

Reason for choice .....

[6]

(i) Describe how the effectiveness of the new system could be evaluated.

.....

[4]

(j) Describe **three** advantages in adopting the new computer-based system when compared to the paper-based system.

1 .....

.....

2 .....

.....

3 .....

..... [3]

(k) Now that the garage has all their spare parts stored on a computer system, they have decided to advertise on the internet. A website has been created to enable customers to obtain information and also order items from the website using their credit cards.

Use the space below to design a web page for this garage to allow customers to order spare parts.

[6]



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