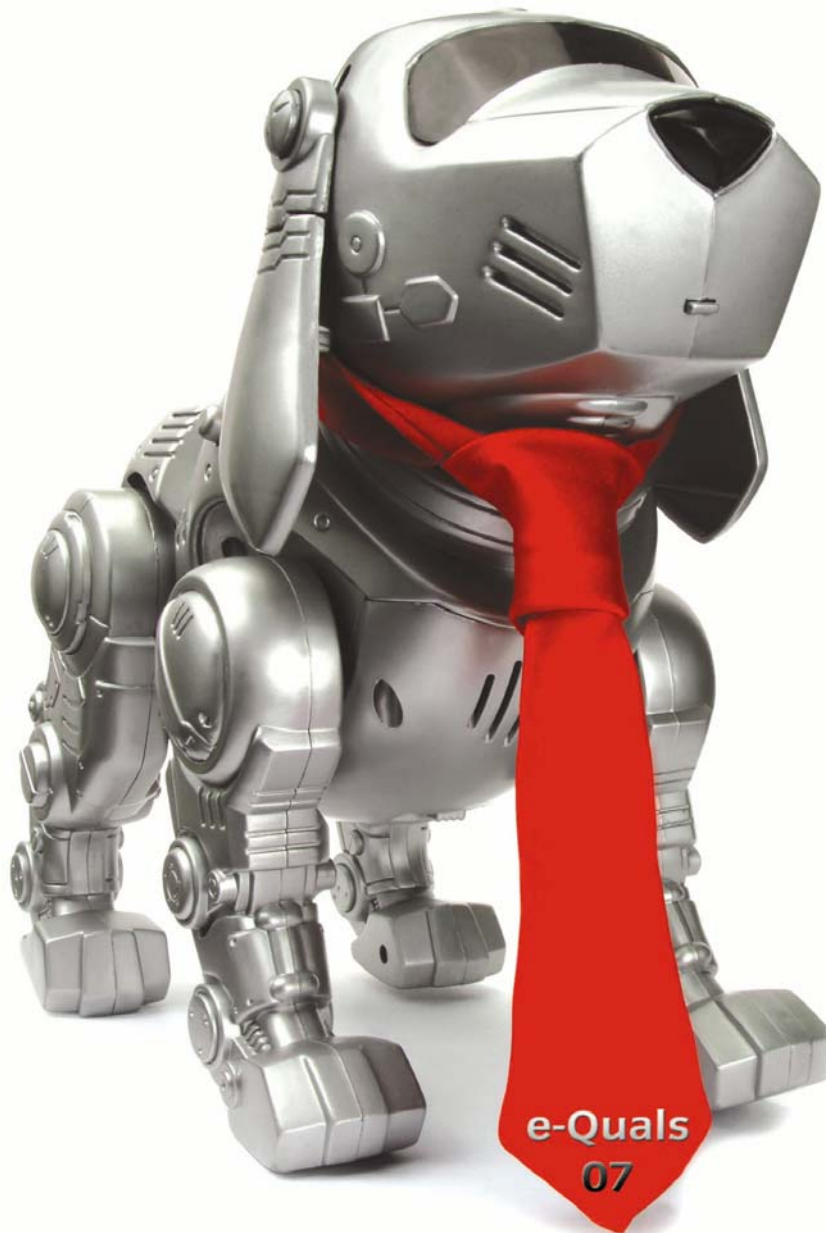


# Level 3 Requirements analysis and systems specification

**(7540-366/7630-347)**

**Systems and Principles**  
**Assignment guide for Candidates**  
Assignment A



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# Level 3 Requirements analysis and systems specification (7540-366/7630-347)

## Assignment A

### Introduction – Information for Candidates

#### About this document

This assignment comprises all of the assessment for Level 3 Requirements analysis and systems specification (7540-366/7630-347).

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#### Health and safety

You are asked to consider the importance of safe working practices at all times.

You are responsible for maintaining the safety of others as well as your own. Anyone behaving in an unsafe fashion will be stopped and a suitable warning given. You will **not** be allowed to continue with an assignment if you compromise any of the Health and Safety requirements. This may seem rather strict but, apart from the potentially unpleasant consequences, you must acquire the habits required for the workplace.

#### Time allowance

The recommended time allowance for this assignment is **8 hours**.

# Level 3 Requirements analysis and systems specification (7540-366/7630-347)

## Candidate instructions

Candidates are advised to read **all instructions** carefully before starting work and to check with your assessor, if necessary, to ensure that you have fully understood what is required.

**Time allowance: 8 hours**

**Assignment set up:** A scenario is provided below for this assignment.

This assignment is made up of **five** tasks

- **Task A** - requires candidates to plan for the identification of customer requirements.
- **Task B** - requires candidates to establish the customer's requirements.
- **Task C** - requires candidates to produce the logical design specification.
- **Task D** - requires candidates to produce the physical design specification.
- **Task E** - lists what the candidate should produce for their assessor.

## Scenario

A systems development company, Xtra Systems, provides complete IT systems solutions. As a contracted employee of Xtra Systems, you have been asked to undertake an investigation of customer requirements and produce a requirements definition for the implementation of an IT solution for a customer.

### Project brief

**Health & Beauty** operate a nationwide chain of 200 large shops selling a full range of natural ingredient health and beauty products. Health & Beauty also has an agreement with a chain of 300 chemist shops which allows Health & Beauty products to be sold at in-house shops within the chemist stores.

The factory and warehouses are in York together with the head office.

The number of outlets and the range of products is increasing all the time and the company is now experiencing difficulties with its merchandising.

The warehouse has to maintain records on over 15,000 different products and issue orders to the factory for replenishments as stocks fall. This takes up much of the time of warehouse staff.

All products have a barcode on their packaging, which contains the product code.

The ordering patterns of the outlets vary. Some outlet managers demand large quantities with little warning and these cannot be met from stock. Other managers order small quantities of single products thus greatly increasing administrative work all round.

When these points are put to managers of Health & Beauty's own shops they point out that most of their assistants are temporary, mainly unskilled employees. They agree that their ordering and stock checking should be better. Due to high staff turnover, the checkouts are not always fully manned. The popularity of Health & Beauty products results in very busy shops, which leads to a deteriorating customer service.

There have been an increasing number of customer complaints about slow service and the unavailability of some Health & Beauty products.

In the other outlets, the problems are often greater because the sales staff are not Health & Beauty employees and the stock checks are undertaken very irregularly and are highly inaccurate.

## **Task A**

You are strongly recommended to read the instructions and project brief carefully before you begin. An IT solution is required which will simplify and automate the procedures for ordering and maintaining stock levels. In particular the system should take advantage of new technology for example data communications, hand held devices for recording stock, computerised tills and barcode reading devices.

*In this task you are required to plan for the identification of customer requirements.*

- 1 Produce a report, which clearly states:
  - a. the present situation
  - b. the major problems
  - c. why a new system is required
  - d. what further information is required to confirm and/or establish the details of the system data requirements
  - e. two suitable methods of obtaining such information (e.g. record inspection, interviewing) and indicate how they would be used
  - f. extra detail as necessary
  
- 2 Draw either a Pert or GANTT chart showing the activities required to complete the investigation, analysis and requirements definition. Various layouts are acceptable but the chart should follow established practice, use recognised symbols and be as compact as possible.

Before moving on to the next task, obtain approval from your assessor that the activities planned are defined correctly

## **Task B**

*In this task you are required to establish the customer's requirements.*

- 1 Carry out investigations to meet the agreed plan.
  
- 2 Use investigative methods to obtain information on inputs, outputs, processing, user interfaces and frequency.
  
- 3 Draw up a list of interview questions or questionnaire.
  
- 4 Identify constraints.
  
- 5 Obtain approval from your assessor before moving on to the next task.

## **Task C**

*In this task you are required to produce the logical design specification.*

- 1 Carry out analyses to meet the agreed plan.
  
- 2 Identify the main inputs and outputs (documents entering and leaving the system). These are the data flows.

- 3 Identify the external entities, i.e. the sources and recipients of the data inputs and outputs.
- 4 Identify the receiving and generating processes for each data flow. These are the logical functional requirements.
- 5 Identify the data stores associated with the processes. These are the logical data requirements.
- 6 Produce suitable diagrammatical representations for modelling the logical functional and data requirements.
- 7 Create a data dictionary with entries for all the data in the system.
- 8 Identify and specify the capacity requirements.
- 9 Check for and correct defects in the logical design specification.
- 10 Obtain approval from your assessor before moving on to the next task.

## **Task D**

*In this task you are required to produce the physical design specification.*

- 1 Carry out analyses to meet the agreed plan.
- 2 Produce a hardware specification to include memory size, storage devices, printer specifications, data capture equipment and communications equipment.
- 3 Produce a software specification to include the outline program specifications, file organization and access method, screen, file and print layouts, error conditions and associated error messages.
- 4 Produce input and output data specifications to include document description and layout, input and output media, controls and validation.
- 5 Specify security measures to include backup and passwords.

## **Note**

Candidates should produce the following for their Assessor:

- Report.
- Planning chart.
- Interview questions or questionnaire.
- Constraints description.
- Diagram for logical design.
- Data dictionary.
- Capacity requirements description.
- Hardware specification.
- Software specification.
- Input and output data specification.

- Security measures description.
- At the conclusion of this assignment, hand all paperwork and removable media to the test supervisor.
- Ensure that your name is on the removable media and all documentation.
- If the assignment is taken over more than one period, all removable media and paperwork must be returned to the test supervisor at the end of each sitting.



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