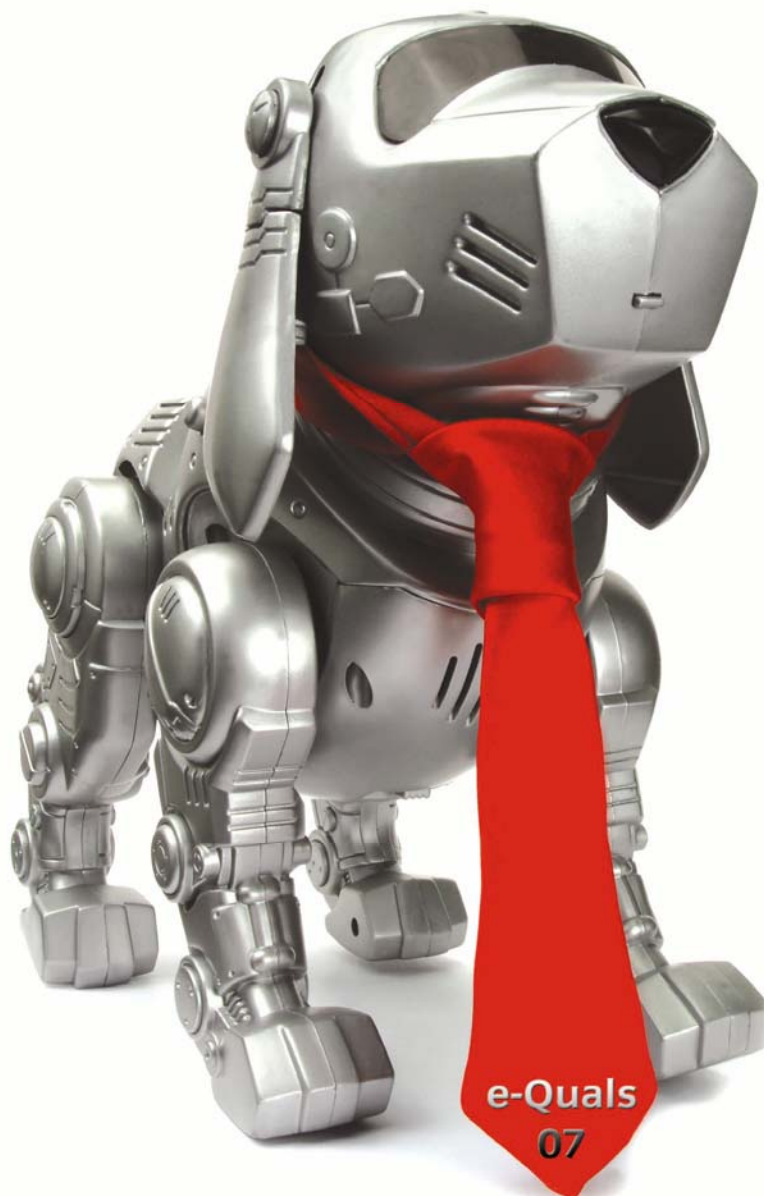


Level 3 Develop software using COBOL (7266/7267-303)

e-Quals

Assignment guide for Candidates

Assignment C



About City & Guilds

City & Guilds is the UK's leading provider of vocational qualifications, offering over 500 awards across a wide range of industries, and progressing from entry level to the highest levels of professional achievement. With over 8500 centres in 100 countries, City & Guilds is recognised by employers worldwide for providing qualifications that offer proof of the skills they need to get the job done.

City & Guilds Group

The City & Guilds Group includes City & Guilds, ILM (the Institute of Leadership & Management) which provides management qualifications, learning materials and membership services, NPTC which offers land-based qualifications and membership services, and HAB (the Hospitality Awarding Body). City & Guilds also manages the Engineering Council Examinations on behalf of the Engineering Council.

Equal opportunities

City & Guilds fully supports the principle of equal opportunities and we are committed to satisfying this principle in all our activities and published material. A copy of our equal opportunities policy statement is available on the City & Guilds website.

Copyright

The content of this document is, unless otherwise indicated, © The City and Guilds of London Institute 2007 and may not be copied, reproduced or distributed without prior written consent.

However, approved City & Guilds centres and learners studying for City & Guilds qualifications may photocopy this document free of charge and/or include a locked PDF version of it on centre intranets on the following conditions:

- centre staff may copy the material only for the purpose of teaching learners working towards a City & Guilds qualification, or for internal administration purposes
- learners may copy the material only for their own use when working towards a City & Guilds qualification

The *Standard Copying Conditions* on the City & Guilds website also apply.

Please note: National Occupational Standards are not © The City and Guilds of London Institute. Please check the conditions upon which they may be copied with the relevant Sector Skills Council.

Publications

City & Guilds publications are available on the City & Guilds website or from our Publications Sales department at the address below or by telephoning +44 (0)20 7294 2850 or faxing +44 (0)20 7294 3387.

Every effort has been made to ensure that the information contained in this publication is true and correct at the time of going to press. However, City & Guilds' products and services are subject to continuous development and improvement and the right is reserved to change products and services from time to time. City & Guilds cannot accept liability for loss or damage arising from the use of information in this publication.

City & Guilds

1 Giltspur Street

London EC1A 9DD

T +44 (0)20 7294 2800

F +44 (0)20 7294 2400

www.cityandguilds.com

learnersupport@cityandguilds.com

Contents

Level 3 Develop software using COBOL (7266/7267-303)

Introduction – Information for Candidates	2
Candidate instructions	3

Level 3 Develop software using COBOL (7266/7267-303)

Assignment C

Introduction – Information for Candidates

About this document

This assignment comprises part of the assessment for Level 3 Develop software using COBOL (7266/7267-303).

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 **6 hours**.

Level 3 Develop software using COBOL (7266/7267-303)

Candidate instructions

Time allowance: 6 hours

Assignment set up:

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

- Task A - provides a detailed design specification that should be followed by candidates when developing their program
- Task B - requires the candidate to test the program that they have created and provide documentation
- Task C - provides criteria that should be followed by candidates

Scenario

You work as a Software Developer for Business Software a company that designs and creates software for clients. You have been asked to design, create and test a program to provide a billing system for an Internet Service Provider company that supplies internet e-mail and connection services to customers.

Task A

In this task you are required to design and create a program from the design details given.

- 1 The records are to be held in a relative file where the relative key is the same as the Customer number and the fields are as shown below:

Name	Type	Length
Customer number	Numeric	4
First Name	Alphanumeric	20
Surname	Alphanumeric	20
Address1	Alphabetic	30
Address2	Alphanumeric	30
Address3	Numeric	20
Postcode	Alphanumeric	10
Tel No	Alphanumeric	12
Service Type	Alphabetic	1

2 The program should display a menu similar to the following:

MENU

- 1 Add a record
- 2 Amend a record
- 3 Delete a record
- 4 Print monthly invoices
- 5 QUIT

3 An EVALUATE statement must be used for the menu option input.

4 The INVALID KEY clause must be used when accessing the relative file.

5 Arrays must be used to hold the data for the Service Type details as shown below:

Service Type	Monthly Price	Description
A	8.99	Dialup
B	15.99	Dialup Anytime
C	19.99	Broadband
D	25.99	Broadband Extra
E	35.99	Broadband Plus

6 Use a SEARCH statement to find the Service Type details from the arrays when producing the monthly invoices.

7 Use a STRING statement to join the First Name and Surname with only one space between them when inserted on the monthly invoice.

8 Tax (VAT) at 17.5% should be added to the monthly price when producing the invoice.

9 Design the screen and print layouts for the program. The stationery for the invoices has a preprinted header containing the company details so the date, customer details and service details should be started after line 12.

10 Create the design for the program.

11 Write the code to implement the design.

Task B

In this task you are required to test the program you have created and provide documentation.

- 1 Prepare a test plan, test data and expected results.
- 2 Test the software; check the expected results against the actual results keeping a log for each test which identifies any discrepancies between actual and expected results and records any amendments made to resolve any logical or run-time errors found.
- 3 Provide evidence that the program complies with the specification eg printed output.
- 4 Print a listing of the code.

Task C

Candidates should follow the criteria below when producing their work:

- 1 The program conforms to the design specification.
- 2 The program is structured.
- 3 Meaningful names are used for user-defined elements.

Note

- Candidates should produce the following for their assessor:
 - design documentation
 - printed program listing
 - test plan, test data and expected results and test log
 - evidence of testing eg printed output
- At the conclusion of this assignment, hand all paperwork and removable storage media to the test supervisor.
- Ensure that your name is on the removable storage media and all documentation.
- If the assignment is taken over more than one period, all removable storage media and paperwork must be returned to the test supervisor at the end of each sitting.

**Published by City & Guilds
1 Giltspur Street
London
EC1A 9DD
T +44 (0)20 7294 2468
F +44 (0)20 7294 2400
www.cityandguilds.com**

**City & Guilds is a registered charity
established to promote education
and training**