

EXIN BCS Practitioner Certificate in Requirements Engineering – Including Exam

Duration: 3 Days **Course Code: BCS-RE**

Overview:

This 3-day BCS Requirements Engineering Practice training + exam covers the range of concepts, approaches and techniques that are applicable to the Practitioner Certificate in Requirements Engineering. It is relevant to anyone working within a business or information systems domain, who requires an understanding of the nature, definition and use of good quality requirements.

Target Audience:

This Practitioner Certificate is designed for people who want to elicit, analyse, validate, document and manage requirements. Suitable for business analysts, business managers and members of their team, business change managers and project managers

Objectives:

- You'll learn how to take a systematic approach to eliciting, analysing, validating, documenting and managing requirements. The certificate includes:
 - An introduction to the requirements engineering process
 - The hierarchy of requirements
 - How to identify stakeholders in the requirements process
 - How to elicit requirements
 - Modelling, designing and analysing requirements
 - Requirements management
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Testing and Certification

- Type: Multiple choice
 - Duration: 60 minutes
 - Supervised: Yes
 - Open Book: No
 - Pass Mark: 25/40
 - Calculators: Calculators cannot be used during this examination.
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Content:

1. Introduction to Requirements Engineering 5%	4.3.11 Activity sampling.	6.3.13 Related requirements.
Candidates will be able to:	4.4 Describe the principles and application of the elicitation techniques (listed in 4.3).	6.3.14 Related documents.
1.1 Define the term 'requirements' and the characteristics of a requirement.	4.5 List the advantages and disadvantages of the elicitation techniques (listed in 4.3).	6.3.15 Comments.
1.2 Explain the rationale for Requirements Engineering and the application of the Requirements Engineering framework.	4.6 Discuss the suitability of the elicitation techniques (listed in 4.3) for Agile and linear development approaches.	6.3.16 Rationale.
1.3 Explain the rationale of requirements planning and estimating.	5 Use of Models in Requirements Engineering 10%	6.3.17 Resolution.
1.4 Describe the elements that should be considered as the contents of a project initiation document, terms of reference or project charter:	Candidates will be able to:	6.3.18 Version history.
1.4.1 Business objectives.	5.1 Explain the rationale for modelling the functional requirements (processing and data) of an information system and describe how models help the analyst to:	6.4 Describe the structure and contents of the requirements document:
1.4.2 Project objectives.	5.1.1 Generate questions in order to clarify a requirement and remove ambiguity.	6.4.1 Introduction and background.
1.4.3 Scope.	5.1.2 Define business rules.	6.4.2 Business process models.
1.4.4 Constraints (budget, timescale, standards).	5.1.3 Cross-check requirements for consistency and completeness.	6.4.3 Function model (use case diagram) of defined requirements.
1.4.5 Authority or sponsor.	5.2 Interpret a given scenario to develop a context diagram.	6.4.4 Data model (class model) of defined requirements.
1.4.6 Resources.	5.3 Interpret a given scenario to identify the different types of event that can initiate processing (external, time based, internal).	6.4.5 Requirements (defined using the selected documentation style).
1.4.7 Assumptions.	5.4 Understand how to construct a UML use case diagram for a given scenario to represent the functional requirements for an information system, including the	6.4.6 Glossary.
2 Hierarchy of Requirements 10%		7 Requirements Analysis 20%
Candidates will be able to:		Candidates will be able to:
2.1 Show understanding of the rationale for the requirements hierarchy and describe how it is applied in Requirements Engineering.		7.1 Explain the rationale for prioritising requirements, using the MoSCoW prioritisation technique.
		7.2 Interpret a given scenario and apply the MoSCoW prioritisation technique.
		7.3 Examine individual requirements; apply filters and quality criteria to assess that they

	following notational elements:	
2.2 Explain the categories within the hierarchy:		are well defined.
2.2.1 Business policy (general) requirements.	5.4.1 System boundary.	
2.2.2 Technical policy requirements.	5.4.2 Actors (user role, another system and time).	7.4 Use requirements for a given scenario to check for technical, business and financial feasibility.
2.2.3 Functional requirements.	5.4.3 Use cases.	
2.2.4 Non-functional requirements.	5.4.4 Communication relationships (associations) between actors and use cases.	7.5 Assign a requirement type to an individual requirement.
3 Stakeholders in the Requirements Process 5%	- It should be noted that there is no requirement to understand include and extend	7.6 Organise the requirements for a given scenario by requirement type and functional area.
Candidates will be able to:	constructs.	
3.1 Define the term stakeholder.	5.5 Interpret a UML Class diagram (comprising of classes, attributes, associations and	7.7 Within a given requirement set:
3.2 Explain the key roles of the following project stakeholders during Requirements Engineering:	multiplicities) that represents the data requirements for a given scenario, and	7.7.1 Identify and resolve duplicate requirements.
3.2.1 Project Manager.	describe the business rules that are represented.	7.7.2 Identify and reconcile overlapping requirements.
3.2.2 Developer.	- It should be noted that there is no requirement to understand operations,	7.7.3 Identify conflicting requirements and explain how requirements negotiation could be applied to resolve these conflicts.
3.2.3 Tester.	association classes, generalisation (and associated concepts of inheritance and	7.7.4 Identify ambiguous requirements and aspects to be defined to remove
3.2.4 Solution Architect.	polymorphism), aggregation and composition.	ambiguity.
3.3 Explain the key roles of the following business stakeholders during Requirements Engineering:	5.6 Explain the benefits to be derived from cross-referencing models and illustrate how	7.8 Explain the use of prototyping to elaborate requirements.
3.3.1 Project Sponsor.	this can be achieved by using a CRUD matrix (of function or event against data).	8 Requirements Validation 5%
3.3.2 Subject Matter Expert.	6 Requirements Documentation 15%	Candidates will be able to:
3.3.3 End User.	Candidates will be able to:	8.1 Describe the rationale for the following approaches to requirements validation:
3.3.4 Business Manager.	6.1 Explain the rationale for creating a requirements document and for documenting	8.1.1 Informal reviews.

3.4 Interpret a given scenario, identify stakeholders and describe their contribution to Requirements Engineering.	requirements at different levels of definition, relating to:	8.1.2 Formal reviews:
4 Requirements Elicitation 20%	6.1.1 The nature of the solution.	8.1.2.1 Structured walkthrough.
Candidates will be able to:	6.1.2 The level of priority.	8.1.2.2 Prototype reviews.
4.1 Explain different knowledge types:	6.1.3 The delivery approach.	8.2 Explain the steps to be followed in the validation process for requirements artefacts:
4.1.1 Tacit / Non-tacit (explicit).	6.2 Understand how to construct requirements documentation for a given scenario, using	8.2.1 Plan review.
4.1.2 Individual / Corporate.	the following specified styles:	8.2.2 Conduct review of artefacts.
4.2 Interpret a given scenario to identify different knowledge types.	6.2.1 User story.	8.2.3 Collect comments.
4.3 Interpret a given scenario to identify relevant elicitation techniques from the following	6.2.2 Use case.	8.2.4 Undertake actions.
list:	6.2.3 Requirements list.	8.2.5 Revise artefacts.
4.3.1 Interviews.	6.2.4 Requirements catalogue.	8.2.6 Obtain approval.
4.3.2 Workshops.	6.3 Describe a requirement in terms of its characteristics or attributes and explain why	9 Requirements Management 10%
4.3.3 Observation.	each of the following may be needed:	Candidates will be able to:
4.3.4 Focus groups.	6.3.1 Identifier.	9.1 Explain the rationale for requirements management.
4.3.5 Prototyping.	6.3.2 Name.	9.2 Define the elements of requirements management and the links between them.
4.3.6 Scenario analysis.	6.3.3 Description.	9.3 Explain the structure and elements of a change control process.
4.3.7 Document analysis.	6.3.4 Source.	9.4 Explain the structure and elements of version control.
4.3.8 Surveys.	6.3.5 Owner.	9.5 Define two forms of traceability and how projects benefit from each of them:
4.3.9 Record searching.	6.3.6 Author.	9.5.1 Horizontal (forwards from origin to delivery and backwards from delivery to origin).
4.3.10 Special purpose records.	6.3.7 Type (general, technical, functional, non-functional).	9.5.2 Vertical (to business objectives).
	6.3.8 Priority.	

6.3.9 Business area.

6.3.10 Stakeholders.

6.3.11 Associated non-functional requirements.

6.3.12 Acceptance criteria.

9.6 Explain the rationale and the approach to achieving requirements traceability..

Further Information:

For More information, or to book your course, please call us on Head Office 01189 123456 / Northern Office 0113 242 5931

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