AXELOS
GLOBAL BEST PRACTICE

Pre-release of RESILIA™ Foundation Examination Specification & Courseware Syllabus

for Examination Institutes, Accredited Training Organizations, Courseware Providers and Courseware Reviewers

June 2015

AXELOS.com

Table of Contents

1. Introduction

The purpose of this document is:

- to specify the learning outcomes of the RESILIA Foundation qualification and the minimum course content for each learning outcome as referenced to the RESILIA Best Practice Guide;
- to specify the Examination requirements a candidate is expected to demonstrate for each learning outcome.

The target audience for this document is:

- Examination Institutes (EI);
- Accredited Training Organizations (ATO);
- Courseware Providers;
- Courseware Reviewers.

1.1 Notes on use of this document

This document provides guidance to courseware developers and trainers. It shows the primary reference for specific knowledge that is in scope for the exam whilst recognizing that knowledge within the whole manual is actually examinable.

Where specific text and figures are referenced this does not mean that the specific material has to appear in the courseware – simply that the related knowledge should be covered for completeness of content.

2. RESILIA Foundation Examination Specification & Courseware Syllabus

The table below specifies the learning outcomes of the RESILIA Foundation qualification and the minimum course content for each learning outcome as referenced to the RESILIA Best Practice Guide. It also specifies the assessment criteria used to assess candidate's achievement of the learning outcomes subsequent to attending the course.

The examination duration is 1 hour and 40 minutes. Candidates are expected to achieve a score of 65% or higher in order to pass the examination and be awarded certification. 65% is the equivalent of 32.5 marks, therefore a raw score of 33 marks or above must be achieved.

Learning Outcome	Assessment Criteria (references to the Resilia Best Practice Guide in brackets) The verb for each syllabus area/assessment criteria indicates the Bloom's level: e.g. 'Identify', 'Recall', 'Recognize' indicates Level 1 basic recall and recognition e.g. 'Describe', 'Explain', 'Distinguish' indicates Level 2 understanding/comprehension	Bloom's level (BL)	Exam weight	Exam sections
1. Understand the purpose, benefits and key terms of cyber resilience	1.1 Describe what cyber resilience is (1.4.5)	Inferred knowledge	4%	2 x Multiple Choice Questions (MCQ)
	1.2 Identify the benefits of cyber resilience (1.3/1.4/1.6)			
	1.3 Identify the terms: a) security and resilience (1.4.4) b) preventative detective, and corrective controls (1.4.6/1.5.7) c) people, process and technology (1.7.3)	BL 1		
	1.4 Identify the purpose of balancing: a) preventative detective, and corrective controls (1.4.6/1.5.7) b) people, process, technology (1.7.3) c) risks and opportunities (1.5.1)	BL 2		
	1.5 Identify the need for: a) confidentiality (1.5.5) b) integrity (1.5.5) c) availability (1.5.5) d) authentication (1.5.6) e) non-repudiation (1.5.6)			

Learning Outcome	Assessment Criteria (references to the Resilia Best Practice Guide in brackets) The verb for each syllabus area/assessment criteria indicates the Bloom's level: e.g. 'Identify', 'Recall', 'Recognize' indicates Level 1 basic recall and recognition e.g. 'Describe', 'Explain', 'Distinguish' indicates Level 2 understanding/comprehension	Bloom's level (BL)	Exam weight	Exam sections
2. Understand the purpose of risk management and the key activities needed to address risks and opportunities	2.1 Describe what risk management is (2.0 up to but not including 2.1 onwards)	BL 2	10%	5 x MCQs
	2.2 Identify the purpose of risk management	BL 2		
	2.3 Identify the terms: risk, asset, vulnerability, threat (2.2)	BL 1		
	2.4 Describe actions to address risks and opportunities:(2.3) a) Establish context b) Establish criteria for risk assessment and acceptance c) Risk identification d) Risk analysis and evaluation e) Risk treatment f) Risk monitoring and review	BL 2		
	2.5 Identify the terms: a) Risk register (2.3.3) b) Risk avoidance (2.3.5) c) Risk modification (2.3.5) d) Risk sharing (2.3.5) e) Risk retention (2.3.5) f) Risk treatment plan (2.3.5) g) Defence-in-depth (2.3.5)	BL 1		
3. Understand the purpose of a management system and how best practices and standards can contribute	3.1 Identify the purpose and scope of a management system (3.1)	BL 1	4%	2 x MCQs
	3.2 Identify the components of a management system (first bulleted list in 3.1)	BL 1		
	3.3 Recognize the relevance of common management standards and best practice frameworks to cyber resilience (3.1): a) ITIL (3.1.1) b) ISO/IEC 27001 (3.1.2) c) NIST Framework for Improving Critical Infrastructure Cybersecurity (8.5.2 up to but not including 8.5.2.1)	BL 1		
	3.4 Describe the difference between management, governance (3.1) and compliance (4.1.4.2)	BL 2		

Learning Outcome	Assessment Criteria (references to the Resilia Best Practice Guide in brackets) The verb for each syllabus area/assessment criteria indicates the Bloom's level: e.g. 'Identify', 'Recall', 'Recognize' indicates Level 1 basic recall and recognition e.g. 'Describe', 'Explain', 'Distinguish' indicates Level 2 understanding/comprehension	Bloom's level (BL)	Exam weight	Exam sections
4. Understand the purpose of cyber resilience strategy, the associated control objectives and their interactions with ITSM activities	4.1 Identify what cyber resilience strategy is intended to achieve (Section 4 up to and not including 4.1.1)	BL 1	12%	6 x MCQ questions
	4.2 Identify cyber resilience activities that should be aligned with IT service strategy (4.2 bulleted list before 4.2.1)	BL 1		

	4.3 Describe the purpose and key features of the control objectives:
	a) establish governance (4.1.1 up to but not including 4.1.1.1)
	   i) key activities (Fig 4.1/4.1.1)
	b) manage stakeholders (4.1.2)
	   i) common categories (4.1.2.1)
	   ii) gathering requirements (4.1.2.2 bulleted list only)
	   iii) planning communication (4.1.2.3 excluding content of strategic communication plan)
	c) create and manage policies (4.1.3 up to but not including 4.1.3.1, not including bulleted list of policies, including 4.1.3.2)
	d) manage audit and compliance (4.1.4)
		BL 2		

	4.4 Identify interactions between the following ITSM processes and cyber resilience: (knowledge of the underlying ITSM processes will not be examined) a) Strategy management for IT Services (4.2.1) b) Service portfolio management (4.2.2, including Fig. 4.3) c) Financial management for IT Services (4.2.3 including Fig. 4.4) d) Demand management (4.2.4 including Fig. 4.5) e) Business relationship management (4.2.5)	BL 1		

Learning Outcome	Assessment Criteria (references to the Resilia Best Practice Guide in brackets) The verb for each syllabus area/assessment criteria indicates the Bloom's level: e.g. 'Identify', 'Recall', 'Recognize' indicates Level 1 basic recall and recognition e.g. 'Describe', 'Explain', 'Distinguish' indicates Level 2 understanding/comprehension	Bloom's level (BL)	Exam weight	Exam sections
5. Understand the purpose of cyber resilience design, the associated control objectives and their interactions with ITSM activities	5.1 Identify what cyber resilience design is intended to achieve (Section 5 up to and not including 5.1.1)	BL 1	16%	8 x MCQ questions
	5.2 Identify cyber resilience activities that should be aligned with IT service design (5.2 bulleted list before 5.2.1)	BL 1		
	5.3 Describe the purpose and key features of the control objectives: a) Human resource security (5.1.1, including 5.1.1.1 and 5.1.1.5, excluding 5.1.1.2, 5.1.1.3 and 5.1.1.4) b) System acquisition, development, architecture and design (5.1.2, 5.1.2.1 excluding Table 5.1, 5.1.2.2 excluding Table 5.2, 5.1.2.3 key message only, 5.1.2.4, 5.1.2.6, 5.1.2.7 key message only, excluding 5.1.2.5) c) Supplier and 3rd party security (5.1.3.1 first para & key message only, 5.1.3.3, 5.1.3.4 including Best Practice call out box) d) Endpoint security (5.1.4) e) Cryptography (5.1.5 first two paras, 5.1.5.5 key message only [key message appears just before the heading 5.1.5.5], 5.1.5.8 first para, Best practice callout box after 5.1.5.9 and before 5.1.6) f) Business continuity (5.1.6 whole/including sub sections)	BL 2		
	5.4 Identify interactions between the following ITSM processes and cyber resilience: (knowledge of the underlying ITSM processes will not be examined) a) Design co-ordination (5.2.1 including Fig. 5.5) b) Service catalogue management (5.2.2 including Fig. 5.6) c) Service level management (5.2.3 including Fig. 5.7) d) Availability management (5.2.4 including Fig. 5.8) e) Capacity management (5.2.5 including Fig. 5.9) f) IT service continuity management (5.2.6 including Fig. 5.10) g) Supplier management (5.2.7 including Fig. 5.11)	BL 1		

Learning Outcome	Assessment Criteria (references to the Resilia Best Practice Guide in brackets) The verb for each syllabus area/assessment criteria indicates the Bloom's level: e.g. 'Identify', 'Recall', 'Recognize' indicates Level 1 basic recall and recognition e.g. 'Describe', 'Explain', 'Distinguish' indicates Level 2 understanding/comprehension	Bloom's level (BL)	Exam weight	Exam sections
6. Understand the purpose of cyber resilience transition, the associated control objectives and their interactions with ITSM activities	6.1 Identify what cyber resilience transition is intended to achieve (Section 6 up to and not including 6.1.1)	BL 1	18%	9 x MCQ questions
	6.2 Describe the purpose and key features of the control objectives: a) Asset management and configuration management (6.1.1 up to and including bulleted list introduced with the phrase "Key elements in asset management are:") b) Classification and handling (6.1.1.1 excluding Table 6.2) c) Data transportation and removable media (6.1.1.2) d) Change management (6.1.2 excluding bulleted list introduced with the phrase "For instance, ITIL change management helps to:") e) Testing (6.1.3 excluding Table 3 & references to OWASP) f) Training (6.1.4) g) Documentation management (6.1.5) h) Information retention (6.1.6 first two paras) i) Information disposal (6.1.7)	BL 2		
	6.3 Identify interactions between the following ITSM processes and cyber resilience: (knowledge of the underlying ITSM processes will not be examined) a) Transition planning and support (6.2.1, including Fig. 6.4) b) Change management (6.2.2, including Fig. 6.5) c) Service asset and configuration management (6.2.3, including Fig. 6.6) d) Release and deployment management (6.2.4, including Fig. 6.7) e) Service validation and testing (6.2.5, including Fig. 6.8) f) Change evaluation (6.2.6, including Fig. 6.9) g) Knowledge management (6.2.7) h) Management of organizational change (6.2.8)	BL 1		

Learning Outcome	Assessment Criteria (references to the Resilia Best Practice Guide in brackets) The verb for each syllabus area/assessment criteria indicates the Bloom's level: e.g. 'Identify', 'Recall', 'Recognize' indicates Level 1 basic recall and recognition e.g. 'Describe', 'Explain', 'Distinguish' indicates Level 2 understanding/comprehension	Bloom's level (BL)	Exam weight	Exam sections
7. Understand the purpose of cyber resilience operation, the associated control objectives and their interactions with ITSM activities	7.1 Identify what cyber resilience operation is intended to achieve (7.0 up to but not including the bulleted list of control types, 7.1 up to but not including 7.1.1)	BL 1	18%	9 x MCQ questions
	7.2 Describe the purpose and key features of the control objectives: a) Access control (7.1.1 excluding 7.1.1.9 and 7.1.1.10, but including Key Message after 7.1.1.10) b) Network security management (7.1.2 first para and Best Practices only & 7.1.2.3, 7.1.2.4, 7.1.2.5, 7.1.2.6 first para and Best Practices only, 7.1.2.7, 7.1.2.8, 7.1.2.9, 7.1.2.11, excluding 7.1.2.1, 7.1.2.2, 7.1.2.10, and 7.1.2.12) c) Physical security (7.1.3, excluding list of data centre standards in 7.1.3.2)	BL 2		
	d) Operations security (7.1.4, excluding 7.1.4.1) e) Incident management (7.1.5, exclude first key message)	BL 2		
	7.3 Identify interactions between the following ITSM processes and cyber resilience: (knowledge of the underlying ITSM processes will not be examined) a) Event management (7.2.1, including Fig. 7.3) b) Incident management (7.2.2, including Fig. 7.4) c) Request fulfilment (7.2.3, including Fig. 7.5) d) Problem management (7.2.4, including Fig. 7.6) e) Access management (7.2.5, including Fig. 7.7) f) Service desk (7.2.6) g) Technical management (7.2.7) h) Applications management (7.2.8) i) IT operations management (7.2.9)	BL 1		

Learning Outcome	Assessment Criteria (references to the Resilia Best Practice Guide in brackets) The verb for each syllabus area/assessment criteria indicates the Bloom's level: e.g. 'Identify', 'Recall', 'Recognize' indicates Level 1 basic recall and recognition e.g. 'Describe', 'Explain', 'Distinguish' indicates Level 2 understanding/comprehension	Bloom's level (BL)	Exam weight	Exam sections
8. Understand the purpose of cyber resilience continual improvement, the associated control objectives and their interactions with ITSM activities	8.1 Identify what cyber resilience continual improvement is intended to achieve (Section 8 up to but not including 8.1.1)	BL 1	9%	8 x MCQ questions
	8.2 Recognize maturity models and their purpose (8.5 up to but not including 8.5.1 onwards)	BL 1		
	8.3 Describe the purpose and key features of the control objectives: a) Audit and review (8.1.1) b) Control assessment (8.1.2) c) Key Performance Indicators (KPI), Key Risk Indicators (KRI), Benchmarking (8.1.3 excluding tables) d) Business continuity improvements (8.1.4) e) Process improvements (8.1.5) f) Remediation and improvement planning (8.1.6, 8.1.6.1 excluding bulleted list and table, 8.1.6.2)	BL 2		
	8.4 Describe how the seven-step improvement process can be used to plan cyber resilience improvements (8.2.3)	BL 2		
	8.5 Describe how to use the ITIL CSI approach to plan cyber resilience improvements (8.3)	BL 2		
9.Understand the purpose and benefits of segregation of duties and dual controls	9.1 Describe segregation of duties and dual controls (9.2)	BL 2	2%	1 x MCQ
TOTAL	Examination duration: 1 hour and 40 minutes		100%	50 MCQs