ISO 9001
Quality
Management Systems
Professional

Syllabus

PEOPLECERT

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1. Introduction

ISO 9001: Quality Management Systems (QMS) is the recognized International standard, which defines the requirements for a service or product provider to deliver managed services or products of an acceptable quality for its customers. This standard is framework independent. As Quality becomes more vital to organizations seeking to achieve strategic goals on a daily basis, top performing service or product providers need to demonstrate world class service capabilities aligned to strategic goals. The ISO 9001 standard for Quality Management Systems allows an organization to demonstrate achievement of excellence and compliance with global best practices for quality Management.

PEOPLECERT's ISO 9001 Professional level qualification covers the **knowledge** required for a candidate to prove a solid understanding of the content and requirements of the international standard, **ISO 9001: Quality Management Systems.** In short, the Foundation certification covers the knowledge required to gain an **understanding** of the **content** and **requirements** of the international standard ISO 9001: Quality Management Systems as well as the **skills** required to successfully apply and implement all the practical content of the standards, for anyone involved in any Quality Management Systems implementation or improvement activity. **PEOPLECERT's ISO 9001 Professional** level qualification is also the first step in achieving the **Auditor** or the **Consultant** level of certification, since after successfully passing the Professional level of this qualification an additional level of certification can be achieved depending on which supplemental certification is achieved (Peoplecert's ISO 19011 or Peoplecert's ISO 10019 plus a Personal Attributes Assessment Test).

It is **recommended** that candidates attempting this level of the certification possess fundamental knowledge of quality management systems principles and processes. It is **mandatory** that candidates at this level of certification attend associated accredited training course and hold Peoplecert's ISO 9001 Foundation certificate.

2. Target Group/Audience

This qualification is the **second level (higher)** of the ISO 9001 certification scheme provided by Peoplecert, and is aimed at anyone working within a service provider organization (internally or externally) who may require to have and demonstrate a solid **knowledge** and **understanding** of the **ISO 9001 standard** and its **practical content**. The certification can also cater for candidates seeking certification at a highly practical and not only theoretical level in regards to Quality Management System implementation activities based on ISO 9001 and or candidates who need to prove not only their understanding of the subject but also their ability to **practically apply** ISO 9001 within their organization.

This qualification will provide the **Professional** level of knowledge to its holders and will certify that they have a solid understanding of the standard and its practical content, catering for the **advanced** level of knowledge for:

(a) staff responsible for managing implementation of the standard in a service provider organization
(b) external or internal auditors[1]
(c) external consultants or managers[2]

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[1] *Requires successfully sitting an additional supplemental test on ISO 19011 and a Personal Attributes Assessment Test*

[2] *Requires successfully sitting an additional supplemental test on ISO 10019 and a Personal Attributes Assessment Test*

This certification will prove that a candidate has sufficient understanding of ISO 9001 and its **application** in order to be able to analyze and apply their knowledge and competencies onto a wide range of activities that would support organizations in achieving and/or retaining ISO 9001 certification. A lower level of knowledge is covered in the previous level (Foundation) of the ISO 9001 certification scheme provided by Peoplecert.

3.   Learning Objectives

As this is the **Professional** level course, candidates will be introduced to the principles and details of the ISO 9001 standard for Quality Management Systems, and more specifically:

- **ISO 9001:2008**: the standard which defines the requirements for a Quality Management System.
- **ISO 9000:2008:** deals with the fundamentals of quality management systems.

Holders of **PEOPLECERT's** ISO 9001: Quality Management Systems **Professional** Certification will be able to demonstrate their knowledge, ability, competence and understanding in:

- Definitions and principles of quality management in accordance with ISO 9001.
- Objectives and requirements in each section of the specification.
- Scope, aims and use of the ISO 9001 Specification and Code of Practice.
- Processes and objectives of ISO 9001 and Quality management (QM).
- Fundamental requirements for a quality management system (QMS).
- Eligibility and scoping statement requirements.
- Requirements of the quality management system and the Plan, Do, Check, Act cycle.
- How assessments, reviews and internal audits of quality Management systems against the requirements of the standard are used.
- Application of the requirements in an organization.

4.   Examination

The ISO 9001 Professional Certification Exam is designed to validate a candidate's deep knowledge of the contents and requirements of the standard and will allow for further development along the personnel certification path. The **Professional** exam focuses on the following **four** (**4**) categories in the cognitive domain of **Bloom's taxonomy**[3]:

- **Knowledge**
- **Comprehension**
- **Application**
- **Analyze**

4.1 Entry Criteria/Training Requirements

There are **specific** entry criteria for candidates of the ISO 9001 **Professional** level examination. It is **mandatory** that candidates at this level of certification attend formal and accredited training on the subject with a minimum duration of **24 hours** and that they hold a PEOPLECERT's ISO 9001 Foundation level certificate. A detailed breakdown of these training hours, per topic area is provided in the syllabus section.

4.2 Assessment Approach

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[3] *The Bloom's taxonomy defines **six** (6) levels of learning in the **cognitive** domain (know, comprehend, apply, analyze, evaluate, create), which are both sequential and cumulative and move from the simple to the complex. In order to achieve the 6th level of learning, it must be ensured that the previous five levels have been mastered.*
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The assessment approach used focuses on the basic categories of Knowledge, Comprehension, Application and Analysis.

Knowledge is defined as recalling previously learned material, from facts to theories and represents the lowest level of learning outcomes in the cognitive domain. Such learning outcomes are turned in assessment objectives that include knowing and recalling such as:

- Common and/or basic terms, definitions, concepts and principles
- Specific compliance requirements and facts
- Processes, procedures and assessment methods

Comprehension is the lowest level of understanding and entails the ability to grasp the meaning of the material taught, including some sort of interpretation, translation or estimation during the process. Such learning outcomes and in turn assessment objectives go beyond simply recalling information and may include:

- Understanding facts, concepts and principles
- Interpreting material (i.e. charts, graphs, text)
- Justifying a Process, procedure and assessment method

Application is a level where candidates need to combine their knowledge and understanding/comprehension on a subject and be able to create an abstraction. More specifically, candidates are expected to apply their knowledge and understanding so that abstractions, general principles, or methods to specific concrete situations are made. Such learning outcomes and in turn assessment objectives go beyond simply recalling information and may include:

- use ideas, principles and theories in new, particular and concrete situations
- being able to choose appropriate procedures, apply principles, use a specific approach or identify the selection of options at a given situation
- apply what is learnt into a new situation
- apply rules, methods, concepts, principles, laws, and theories

Learning outcomes in this area require a higher level of understanding than those under comprehension

Analysis is the level that goes beyond application as the candidates need to be able to break down information into its component parts so that its organizational structure may be understood and to make inferences. More specifically, candidates need to break down, discriminate, diagram, detect, differentiate and illustrate which are all important tasks at this level of learning and include the previous levels of knowing, comprehending and applying. Such learning outcomes and in turn assessment objectives go beyond knowing, understanding and applying and may include:

- see patterns that they can use to analyze a problem
- develop divergent conclusions by identifying motives or causes
- make inferences
- find evidence to support generalizations
- identify parts, analyze the relationship between parts, and recognize the organizational principles involved

Learning outcomes here represent a higher intellectual level than comprehension and application because they require an understanding of both the content and the structural form of the material.

The assessment incorporates the above learning outcomes as it uses assessment objectives that cater for the above cognitive domain categories.

4.3 Examination Format

The following table details the examination format:

Delivery	Computer (web) or Paper based
Type	**40 Multiple choice questions** *Single answer, one of four possible answers* *Each question is awarded one (1) mark*
Duration	**1 ½ hours (90 minutes)** *For non-native speakers or candidates with a disability, an additional 30 minutes of extra time is allowed.*
Pass Mark	**65% (26/40)**
Invigilator / Supervisor / Proctor	**Yes** *Physical or Web proctoring*
Open Book	**No** *No materials are allowed in the examination room*
Prerequisites	**Formal Training (24 hours)** **Peoplecert's ISO 9001 Foundation level certificate**
Distinction	**N/A**
Certification validity	**N/A**

The tests are derived from a regularly updated question test bank (QTB) based on the test specification detailed below. Questions are used interchangeably among test sets. The overall difficulty level of each test is the same with any other test. A candidate is never assigned the same test in the case of multiple examination attempts.

4.4 Detailed Syllabus

The syllabus contains references to the established ISO 9001 standard and is structured into sections relating to **major subject headings** and numbered with a single digit section number. The **recommended minimum training hours, per Syllabus Category** are also provided in this table.

Note that for the Professional level of certification all questions pertaining to the Knowledge set are **knowledge**, **understanding, application** and **analysis** items (levels 1 through 4) with emphasis on the two higher levels.

At the end of the training session, allow **30 minutes** for the candidates to familiarize themselves with the exam process and the sample questions. An additional **hour** could be provided for the sample test and/or answering the sample test for better preparation of the exam.

Category	Ref	Knowledge Set
QMS-1.1 Process Approach, Introduction, Terms and Definitions	QMS-1.1.1	Process Approach - Introduction
	QMS-1.1.2	Application of the ISO 9001 Standard
	QMS-1.1.3	ISO 9000:2008 - Fundamentals and Vocabulary
Proposed Training Time: 180 minutes		
QMS-1.2 Quality Management System	QMS-1.2.1	General Requirements
	QMS-1.2.2	General Documentation Requirements
	QMS-1.2.3	Quality Manual
	QMS-1.2.4	Control of Documents
	QMS-1.2.5	Control of Record
Proposed Training Time: 120 minutes		
QMS-1.3 Management Responsibility	QMS-1.3.1	Management Commitment
	QMS-1.3.2	Customer Focus
	QMS-1.3.3	Quality Policy
	QMS-1.3.4	Quality Objectives
	QMS-1.3.5	Quality Management System Planning
	QMS-1.3.6	Responsibility and authority
	QMS-1.3.7	Management Representative
	QMS-1.3.8	Internal Communication
	QMS-1.3.9	Management Review
Proposed Training Time: 150 minutes		
QMS-1.4 Resource Management	QMS-1.4.1	Provision of resources
	QMS-1.4.2	Human Resources
	QMS-1.4.3	Infrastructure
	QMS-1.4.4	Work Environment
Proposed Training Time: 120 minutes		
QMS-1.5 Product Realization	QMS-1.5.1	Planning of product realization
	QMS-1.5.2	Customer-related processes
	QMS-1.5.3	Design and development

Category	Ref	Knowledge Set
	QMS-1.5.4	Purchasing
	QMS-1.5.5	Production and service provision
	QMS-1.5.6	Control of monitoring and measuring equipment
Proposed Training Time: 300 minutes		
QMS-1.6 Measurement, analysis and improvement	QMS-1.6.1	General requirements
	QMS-1.6.2	Monitoring and Measurement
	QMS-1.6.3	Control of nonconforming product
	QMS-1.6.4	Analysis of data
	QMS-1.6.5	Improvement
Proposed Training Time: 240 minutes		
QMS-1.7 Quality Management System Auditing	QMS-1.7.1	Auditing best practices
	QMS-1.7.2	Study cases
Proposed Training Time: 300 minutes *Exam preparation and sample test/sample questions: 30 minutes*		

4.5 Test Specification

The examination will consist of **seven** (**7**) sections with the following structure:

Category	Description	Exam (%)
1	**QMS-1.1 Process Approach, Introduction, Terms and Definitions**	**30.0%**
2	**QMS-1.2 Quality Management System**	**5.0%**
3	**QMS-1.3 Management Responsibility**	**10.0%**
4	**QMS-1.4 Resource Management**	**7.5%**
5	**QMS-1.5 Product Realization**	**17.5%**
6	**QMS-1.6 Measurement, analysis and improvement**	**15.0%**
7	**QMS-1.7 Quality Management System Auditing**	**15.0%**
	Total	**100.0%**

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5. Recommended Reading

(i) ISO copy of the standard for this certification/examination

ISO 9001:2008 <u>Quality Management Systems - Requirements</u>. Switzerland, ISO, 2008.

ISO 9000:2008 <u>Fundamentals and vocabulary.</u> Switzerland, ISO, 2008.

(ii) ISO/IEC 19011, <u>Guidelines for quality and/or environmental management systems auditing</u>. Switzerland, ISO, 2011.

(iii) ISO/TR 10013:2001, <u>Guidelines for quality management system documentation</u>. Switzerland, ISO, 2001.

(iv) ISO 10012, <u>Measurement management systems — Requirements for measurement processes and measuring equipment</u>. Switzerland, ISO.

(v) ISO/TR 10017, <u>Guidance on statistical techniques for ISO 9001:2000</u>. Switzerland, ISO.

(vi) ISO/IEC Guide 2, <u>Standardization and related activities — General vocabulary</u>. Switzerland, ISO.

6. Glossary

Accreditation Body	Assessment organizations that provide certification, testing, and inspection and calibration services. Accreditation by an accreditation body demonstrated competence, impartiality and performance capability of an organization that does audits. Ensures a consistent approach.
Accredited Certification Body	Organization that performs certification audits, commonly referred to as 'professional audit companies' and which has been accredited by an accreditation body.
Availability	Ability of a component or service to perform its required function at a stated instant or over a stated period of time.
Baseline	Snapshot of the state of a service or individual configuration items at a point in time.
Change record	Record containing details of which configuration items are affected and how they are affected by an authorized change.
Code of Practice	A standard that recommends 'good, accepted practice as followed by competent practitioners'.
Compliance	Meeting the requirements in ISO9001 (or another national or international standard), as assessed by an internal audit or an organization that is not an accredited certification body or qualified to carry out ISO9001 certification audits. Compliance includes 'Self-assessment Audits'.
Document	Information and its supporting medium. Note 1: In this standard, records are distinguished from documents by the fact that they function as evidence of activities, rather than evidence of intentions. Note 2: Examples of documents include policy statements, plans, procedures, service level agreements and contracts.
Incident	Any event which is not part of the standard operation of a service and which causes or may cause an interruption to, or a reduction in, the quality of that service.
Problem	Unknown underlying cause of one or more incidents.
Record	Document stating results achieved or providing evidence of activities performed.
Release	Collection of new and/or changed configuration items which are tested and introduced into the live environment together.
Request for change	Form or screen used to record details of a request for a change to any configuration item within a service or infrastructure.
Service/product provider	The organization aiming to achieve certification according to ISO9001.
Specification	A standard that sets out 'detailed requirements', using the prescriptive 'shall', to be satisfied by a product, material process or system.