



When Recognition Matters



EXAM PREPARATION GUIDE

PECB Certified Disaster Recovery Manager

The objective of the “PECB Certified Disaster Recovery Manager” examination is to ensure that the candidate has the knowledge and skills to support an organization in implementing, managing, monitoring and maintaining an IT Disaster Recovery plan.

Other examination objectives include: ensuring that the candidate has acquired knowledge to advise an organization on IT Disaster Recovery best practices, ensuring that the candidate has mastered the concepts, approaches, standards, methods and techniques used for the implementation and effective management of IT Disaster Recovery services.

The target population for this examination includes, however it is not limited to:

- Disaster Recovery professionals seeking to gain a comprehensive knowledge on Disaster Recovery best practices
- Individuals responsible for disaster recovery within an organization
- Members of a disaster recovery team
- IT Managers
- Information Security Professionals

The exam content covers the following domains:

- Domain 1: Fundamental principles and concepts of a disaster recovery plan
- Domain 2: Disaster recovery plan development
- Domain 3: Recovery facilities and outsourced services capability
- Domain 4: Testing and maintenance of a disaster recovery plan

The content of the exam is divided as follows:

Domain 1: Fundamental principles and concepts of a disaster recovery plan

Main objective: To ensure that the Disaster Recovery Manager candidate can understand, interpret and illustrate the main disaster recovery concepts related to a Disaster Recovery Plan (DRP)

Competencies	Knowledge statements
<ol style="list-style-type: none"> 1. Understand and explain the difference and relationship between disaster recovery and business continuity. 2. Understand and explain the importance of disaster recovery planning. 3. Understand and explain the initiation of a disaster recovery plan. 4. Ability to explain and illustrate the general planning process of disaster recovery. 	<ol style="list-style-type: none"> 1. Knowledge of the main disaster recovery concepts. 2. Knowledge of disaster recovery planning process. 3. Knowledge of the characteristics of the disaster recovery scope in terms of organizational, technological and physical boundaries.

Domain 2: Disaster recovery plan development

Main objective: To ensure that the Disaster Recovery Manager candidate can understand, interpret and provide guidance on how to implement and manage a disaster recovery plan based on best practices.

Competencies	Knowledge statements
1. Ability to perform different steps of the risk assessment process	1. Knowledge of business impact analysis and risk assessment.
2. Ability to perform different steps of the Business Impact Analysis (BIA)	2. Knowledge of recovery solutions
3. Ability to clearly identify the RTO, RPO and other important metrics	3. Knowledge of risk mitigation strategies
4. Ability to compare possible recovery solutions and identify/analyze the advantages and disadvantages of each solution	4. Knowledge of disaster recovery phases
5. Ability to compare cost vs capability of recovery options	5. Knowledge of the roles and responsibilities of the key actors during the implementation of a disaster recovery plan
6. Ability to develop a risk mitigation strategy related to critical business functions	6. Knowledge of the recovery metrics
7. Ability to identify/develop each phase of the disaster recovery plan	7. Knowledge of the importance of DRP teams and key personnel
8. Ability to define disaster recovery teams and key personnel	

Domain 3: Recovery facilities and outsourced services capability

Main objective: To ensure that the Lead Disaster Recovery Manager candidate can understand, interpret and provide guidance on the evaluation, selection and managing Recovery Sites, Recovery Facilities and Outsourced Services Capability requirements

Competencies	Knowledge statements
<ol style="list-style-type: none">1. Ability to verify the extent to which identified recovery facilities requirements have been met.2. Ability to verify the extent to which identified recovery sites requirements have been met.3. Ability to verify the extent to which identified outsourced service capability requirements have been met.	<ol style="list-style-type: none">1. Knowledge of the recovery facilities.2. Knowledge of the recovery sites.3. Knowledge of the outsourced services capability.

Domain 4: Testing and Maintenance of a disaster recovery plan

Main objective: To ensure that the Lead Disaster Recovery Manager candidate can, monitor, test and maintain a Disaster Recovery Plan

Competencies	Knowledge statements
<ol style="list-style-type: none"> 1. Ability to establish and maintain the functionality and validity of the plan. 2. Ability to develop, test schedules with a pre-defined set of test scenarios. 3. Ability to initiate necessary corrections to the DRP. 4. Understand and interpret various DRP testing strategies. 5. Ability to conduct effective performance measurements. 6. Ability to monitor and assess the effectiveness of a DRP. 7. Understand the importance of continually maintaining and updating the DRP. 	<ol style="list-style-type: none"> 1. Knowledge of the techniques and best practices to test the effectiveness of a DRP. 2. Knowledge of the main concepts and components related to a DRP test. 3. Knowledge of the importance of DRP testing. 4. Knowledge of effective performance measurement techniques. 5. Knowledge of the effective monitoring and evaluation of a DRP.

Based on these 4 domains and their relevance, 7 questions are included in the exam. The passing score is established at **70%**

		Level of Understanding (Cognitive/Taxonomy) Required		Number of Questions per competency domain	% of test devoted to each competency domain	Number of Points per competency domain	% of Points per competency domain	
		Points per Question	Questions that measure Comprehension, Application and Analysis					Questions that measure Synthesis and Evaluation
Competency/Domains	Fundamental principles and concepts of a Disaster Recovery Plan	7	X	1	14.28	7	14	
	Disaster Recovery plan development	7	X	3	42.85	22	44	
		7						X
		8						X
	Recovery facilities and outsourced services capability	7	X	1	14.28	7	14	
	Testing and Maintenance of a disaster recovery plan	7		X	2	28.57	14	28
		7		X				
Total points		50						
Number of Questions per level of understanding			3	4				
% of Test Devoted to each level of understanding (cognitive/taxonomy)			42.86	57.14				

After successfully passing the exam, the candidates will be able to apply for the PECB Certified Disaster Recovery Manager credentials, depending on their level of experience.

TAKE THE CERTIFICATION EXAM

Candidates will be required to arrive at least thirty (30) minutes before the beginning of the certification exam. Candidates arriving late will not be given additional time to compensate for the late arrival and may be denied entry to the exam room (if they arrive more than 5 minutes after the beginning of the exam scheduled time).

All candidates will need to present a valid identity card with a picture such as a driver's license or a government ID to the invigilator.

The exam duration is three (2) hours.

The questions are essay type questions. The questions are essay type questions. This type of format was chosen because the intent is to determine whether an examinee can write a clear coherent answer/argument and to assess problem solving techniques. Because of this particularity, the exam is set to be "open book" and does not measure the recall of data or information. The examination evaluates, instead, comprehension, application, analysis, synthesis and evaluation, which mean that even if the answer is in the course material, candidates will have to justify and give explanations, to show they really understood the concepts. At the end of this document, you will find sample exam questions and their possible answers.

As the exam is "open book" the candidates are authorized to use the following reference materials:

- Course notes from the Participant Handout,
- Any personal notes made by the student during the course and
- A hard copy dictionary

The use of electronic devices, such as laptops, cell phones, etc., is not allowed.

All attempt to copy, collude or otherwise cheat during the exam will automatically lead to the exam's failure.

PECB exams are available in English. For availability of the exam in a language other than English, please contact examination@pecb.com

RECEIVE YOUR EXAM RESULTS

Results will be communicated by email in a period of 6 to 8 weeks, after taking the exam. The results will not include the exact grade of the candidate, only a mention of pass or fail.

Candidates who successfully complete the examination will be able to apply for a certified scheme.

In the case of a failure, the results will be accompanied with the list of domains in which the candidate had a low grade, to provide guidance for exams' retake preparation.

Candidates who disagree with the exam results may file a complaint. For more information, please refer to www.pecb.com

EXAM RETAKE POLICY

There is no limit on the number of times a candidate may retake an exam. However, there are some limitations in terms of allowed time-frame in between exam retakes, such as:

- If a candidate does not pass the exam on the first attempt, he/she must wait 15 days for the next attempt (1st retake). Retake fee applies. *Note: Students, who have completed the full training but failed the written exam, are eligible to retake the exam once for free within a 12 month period from the initial date of the exam.*
- If a candidate does not pass the exam on the second attempt, he/she must wait 3 months (from the initial date of the exam) for the next attempt (2nd retake). Retake fee applies.
- If a candidate does not pass the exam on the third attempt, he/she must wait 6 months (from the initial date of the exam) for the next attempt (3rd retake). Retake fee applies.

After the fourth attempt, a waiting period of 12 months from the last session date is required, in order for candidate to sit again for the same exam. Regular fee applies.

For the candidates that fail the exam in the 2nd retake, PECB recommends to attend an official training in order to be better prepared for the exam.

To arrange exam retakes (date, time, place, costs), the candidate needs to contact the PECB partner who has initially organized the session.

CLOSING FILES

Closing a file is equivalent to rejecting a candidate's application. As a result, when candidates request that their file be reopened, PECB will no longer be bound by the conditions, standards, policies, candidate handbook or exam preparation guide that were in effect before their file was closed.

Candidates who want to request that their file be reopened must do so in writing, and pay the required fees.

EXAMINATION SECURITY

A significant component of a successful and respected professional certification credential is maintaining the security and confidentiality of the examination. PECB relies upon the ethical behaviour of certificate holders and applicants to maintain the security and confidentiality of PECB examinations. When someone who holds PECB credentials reveals information about PECB examination content, they violate the PECB Code of Ethics. PECB will take action against individuals who violate PECB Policies and the Code of Ethics. Actions taken may include permanently barring individuals from pursuing PECB credentials and revoking certifications from those who have been awarded the credential. PECB will also pursue legal action against individuals or organizations who infringe upon its copyrights, proprietary rights, and intellectual property.

SAMPLE EXAM QUESTIONS AND POSSIBLE ANSWERS**1. Fundamental principles of disaster recovery**

Please explain the purpose of conducting a risk assessment and a business impact analysis in the disaster recovery planning process.

Possible Answer:

After the disaster recovery project is initiated the first steps of the disaster recovery planning process are the risk assessment and business impact analysis. These steps are conducted in order to get an understanding of what systems or processes are at risk and what is the potential impact of those risks on organization's critical business functions and also to determine what resources are required for recovery within an acceptable time frame. Another important reason why risk assessment and BIA (business impact analysis) are performed is to identify and define MAO (maximum acceptable outage) and other recovery metrics (such as: RTO, RPO).

2. Testing and Maintenance of a Disaster Recovery Plan

Why should the DR plan be tested and what are some of the best methods to test the DR plan?

Possible Answer:

Disaster Recovery Plan testing should be done annually, because IT equipment, and applications are changing constantly. Many organizations run their DR test over a weekend. They stop operations at the primary site, restore backups at the recovery site, run some tests, and then switch back to the primary site.

Some of the best methods to test the DR plan include:

Simulation (Tabletop exercise)

All personnel with DR responsibilities will meet and go through a practice session. This type of testing enacts recovery procedures but there is no alternate processing.

Parallel

Parallel testing is a full test of the recovery plan using all personnel. Primary processing does not stop. This type of testing ensures that processing will run at an alternate site. Most common type of recovery plan testing.

Full-interruption

Disaster is replicated to the point of stopping normal operations. The disaster recovery plan is implemented as if a real disaster was happening. However, it can be scary and can cause its own disaster, but it is the best way to completely test.

The testing is also iterative when you run a tabletop exercise ensure that everything is planned, reviewed, corrected, and accepted individually. The same applies for parallel simulation.

Only if 100% confident run in full interruption mode i.e. full disaster recovery simulation mode after disaster.