

Sample Exam – Answers

Sample Exam set B

Version 1.1

ISTQB® Test Management Syllabus Advanced Level

Compatible with Syllabus version 3.0

International Software Testing Qualifications Board



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The ISTQB® Examination Working Group is responsible for this document.

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Introduction

Purpose of this document

The example questions and answers and associated justifications in this sample exam have been created by a team of subject matter experts and experienced question writers with the aim of:

- Assisting ISTQB® Member Boards and Exam Boards in their question writing activities
- Providing training providers and exam candidates with examples of exam questions

These questions cannot be used as-is in any official examination.

Note that real exams may include a wide variety of questions, and this sample exam *is not* intended to include examples of all possible question types, styles, or lengths, also this sample exam may both be more difficult or less difficult than any official exam.

Instructions

In this document you may find:

- Answer Key table, including for each correct answer:
 - K-level, Learning Objective, and Point value.
- Answer sets, including for all questions:
 - Correct answer
 - Justification for each response (answer) option
 - K-level, Learning Objective, and Point value.
- Additional answer sets, including for all questions [does not apply to all sample exams]:
 - Correct answer
 - Justification for each response (answer) option
 - K-level, Learning Objective, and Point value.
- *Questions are contained in a separate document.*
- The main part covers a full Sample exam paper acc. to CTAL-TM v3.0 Structure and Rules.

Answer Key

Question Number (#)	Correct Answer	LO	K-Level	Points
1	c	TM-1.1.1	K2	1
2	b	TM-1.1.2	K2	1
3	c	TM-1.2.1	K2	1
4	c	TM-1.2.2	K2	1
5	a	TM-1.2.3	K2	1
6	c	TM-1.2.5	K2	1
7	a, d	TM-1.2.7	K4	3
8	c	TM-1.2.7	K4	3
9	c	TM-1.3.3	K2	1
10	c	TM-1.3.2	K2	1
11	d	TM-1.3.4	K4	3
12	a	TM-1.3.4	K4	3
13	a	TM-1.3.5	K2	1
14	b	TM-1.4.1	K2	1
15	a	TM-1.4.2	K4	3
16	a	TM-1.4.2	K4	3
17	b	TM-1.4.3	K3	2
18	a	TM-1.4.3	K3	2
19	b	TM-1.5.1	K2	1
20	b	TM-1.5.3	K2	1
21	a, c	TM-1.5.4	K3	2
22	a	TM-1.5.4	K3	2
23	b	TM-1.6.1	K2	1
24	c	TM-1.6.3	K4	3
25	c	TM-1.6.3	K4	3

Question Number (#)	Correct Answer	LO	K-Level	Points
26	c	TM-1.6.4	K2	1
27	a	TM-2.1.1	K2	1
28	a	TM-2.1.2	K2	1
29	b, c	TM-2.1.3	K4	3
30	c	TM-2.1.3	K4	3
31	c	TM-2.2.2	K2	1
32	b, d	TM-2.2.3	K4	3
33	c	TM-2.2.3	K4	3
34	c	TM-2.3.1	K3	2
35	b	TM-2.3.1	K3	2
36	b	TM-2.3.2	K2	1
37	a	TM-2.3.3	K2	1
38	a	TM-2.3.4	K2	1
39	b	TM-2.3.5	K3	2
40	a, e	TM-2.3.5	K3	2
41	c	TM-2.3.6	K2	1
42	c	TM-3.1.1	K2	1
43	b, d	TM-3.1.2	K4	3
44	a	TM-3.1.2	K4	3
45	d	TM-3.1.3	K2	1
46	c	TM-3.1.4	K2	1
47	b	TM-3.1.5	K2	1
48	b	TM-3.2.1	K2	1
49	b	TM-3.2.2	K3	2
50	a, c	TM-3.2.2	K3	2

Answers

Question Number (#)	Correct Answer	Explanation / Rationale	Learning Objective (LO)	K-Level	Number of Points
Section: Test Process					
1	c	a) Incorrect. Assigning testers to planned test activities is part of resource planning within release test planning. Reference: CTAL-TM v3.0 Syllabus, Section 1.1.1. b) Incorrect. Estimating the resources and costs required for test environments and tools belongs to test planning. Reference: CTAL-TM v3.0 Syllabus, Section 1.1.1. c) Correct. The test policy is high-level, organization-wide guidance. It is not created for an individual release; release test planning is based on it. Reference: CTAL-TM v3.0 Syllabus, Section 1.1.1. d) Incorrect. Identifying and assessing risks during backlog refinement or release planning supports risk-based decisions on priorities and coverage. Reference: CTAL-TM v3.0 Syllabus, Section 1.1.1.	TM-1.1.1	K2	1
2	b	a) Incorrect. This describes test execution and result evaluation. Test monitoring does not consider individual results in isolation; it collects progress data and compares it with the plan. Reference: CTAL-TM v3.0 Syllabus, Section 1.1.2. b) Correct. Test monitoring records actual progress, compares it with the plan, and exposes deviations early. Timely communication enables effective test control. Reference: CTAL-TM v3.0 Syllabus, Section 1.1.2. c) Incorrect. Postponed monitoring cannot detect deviations early and contradicts its continuous nature. Reference: CTAL-TM v3.0 Syllabus, Section 1.1.2. d) Incorrect. Reporting only at the end of the project jeopardizes timely corrective action, especially in a time-critical sequential project with strict compliance requirements. Reference: CTAL-TM v3.0 Syllabus, Section 1.1.2.	TM-1.1.2	K2	1

Section: Context of Testing					
3	c	a) Incorrect. These roles mainly support coordination and process; they do not normally own business priorities. Reference: CTAL-TM v3.0 Syllabus, Section 1.2.1. b) Incorrect. These stakeholders support documentation, maintenance, and customer support but generally do not significantly influence business priorities or acceptance expectations. Reference: CTAL-TM v3.0 Syllabus, Section 1.2.1. c) Correct. Product owners, project managers, and business users represent business priorities, customer value, and business risks. They influence quality expectations, acceptance criteria, test objectives, and prioritization decisions. Reference: CTAL-TM v3.0 Syllabus, Section 1.2.1. d) Incorrect. These roles are important for technical feasibility and implementation but are not the primary decision makers for early prioritization of business risks. Reference: CTAL-TM v3.0 Syllabus, Section 1.2.1.	TM-1.2.1	K2	1

4	c	a) Incorrect. The head of procurement can influence procurement through budget and contractual constraints. Their interest in operational introduction is limited because their involvement largely ends after contract signature. They belong in the latents quadrant. Reference: CTAL-TM v3.0 Syllabus, Section 1.2.2. b) Incorrect. Test automation specialists have high interest because they will use the tool regularly. Their influence on selection is limited: they provide PoC results but do not define or weight the evaluation criteria. They belong in the defenders quadrant. Reference: CTAL-TM v3.0 Syllabus, Section 1.2.2. c) Correct. The head of test management substantially influences the tool ranking by defining exclusion criteria and weighting evaluation criteria. Coordinating the pilot, process adaptation, and training also gives them high interest in successful introduction. They belong in the promoters quadrant. Reference: CTAL-TM v3.0 Syllabus, Section 1.2.2. d) Incorrect. The scenario does not establish that the quality assurance auditors have both high influence and high interest in tool selection and introduction. Their responsibilities focus on independently checking regulatory evidence rather than evaluating functional suitability or coordinating operational introduction. This does not justify placing them in the high influence and high interest quadrant, but neither does it establish that they have both low influence and low interest. Reference: CTAL-TM v3.0 Syllabus, Section 1.2.2.	TM-1.2.2	K2	1
5	a	a) Correct. Workshops build the team's ability to combine structured processes with Agile flexibility and synchronize continuous testing with documentation and traceability requirements. Reference: CTAL-TM v3.0 Syllabus, Section 1.2.3. b) Incorrect. Simply extending deadlines neither develops competencies in a targeted way nor integrates the different practices. Reference: CTAL-TM v3.0 Syllabus, Section 1.2.3. c) Incorrect. A hybrid model should combine traditional and Agile elements and ease the transition; postponement contradicts that purpose. Reference: CTAL-TM v3.0 Syllabus, Section 1.2.3. d) Incorrect. Outsourcing the Agile part prevents the existing team from developing practical competencies and delays its adaptation. Reference: CTAL-TM v3.0 Syllabus, Section 1.2.3.	TM-1.2.3	K2	1

6	c	a) Incorrect. Clear risk-oriented objectives and a defined scope are central test management tasks in system integration testing. Reference: CTAL-TM v3.0 Syllabus, Section 1.2.5. b) Incorrect. Coordinating environments and interfaces is part of the technical prerequisites and management tasks at this test level. Reference: CTAL-TM v3.0 Syllabus, Section 1.2.5. c) Correct. Product validation and release readiness belong to acceptance testing, rather than system integration testing. Reference: CTAL-TM v3.0 Syllabus, Section 1.2.5. d) Incorrect. Selecting suitable interface test techniques is part of planning and defining the test approach at the system integration test level. Reference: CTAL-TM v3.0 Syllabus, Section 1.2.5.	TM-1.2.5	K2	1
7	a, d	a) Correct. Risk-based planning, appropriate resource allocation, and meaningful monitoring metrics directly address the stated weaknesses in risk, resources, and control. Reference: CTAL-TM v3.0 Syllabus, Section 1.2.7. b) Incorrect. More tests alone do not resolve missing risk-based prioritization or inadequate resource planning and monitoring. Reference: CTAL-TM v3.0 Syllabus, Section 1.2.7. c) Incorrect. Automation in CI/CD is useful but does not replace continuous test monitoring and test control. Reference: CTAL-TM v3.0 Syllabus, Section 1.2.7. d) Correct. Continuous monitoring detects new risks and deviations; test control uses this information for corrective action and adjustments to test planning. Reference: CTAL-TM v3.0 Syllabus, Section 1.2.7. e) Incorrect. More regression testers do not address all causes. Test monitoring and control remain central test management tasks and cannot simply be replaced. Reference: CTAL-TM v3.0 Syllabus, Section 1.2.7.	TM-1.2.7	K4	3

8	c	a) Incorrect. Automation and defect management are necessary but do not reflect the primary need for risk-based planning, monitoring, and control. Reference: CTAL-TM v3.0 Syllabus, Section 1.2.7. b) Incorrect. Configuration management and usability are relevant but do not address the central safety and compliance risks. Reference: CTAL-TM v3.0 Syllabus, Section 1.2.7. c) Correct. The risk-based approach links continuous risk identification and control with risk-oriented regression testing and progress measurement. It supports compliance, traceability, and control during maintenance. Reference: CTAL-TM v3.0 Syllabus, Section 1.2.7. d) Incorrect. Exploratory testing and retrospectives are useful but insufficient for continuous compliance of a safety-critical system. Reference: CTAL-TM v3.0 Syllabus, Section 1.2.7.	TM-1.2.7	K4	3
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Section: Risk-based testing					
9	c	a) Incorrect. Assigning the highest level to everything prevents meaningful prioritization and leads to inefficient use of resources. Reference: CTAL-TM v3.0 Syllabus, Section 1.3.3. b) Incorrect. Risk-based testing does not require rigid testing of all areas; it requires prioritization based on the current risk level. Reference: CTAL-TM v3.0 Syllabus, Section 1.3.3. c) Correct. Risk level depends on likelihood and impact. Here, only low likelihood was considered even though the impact was high. Reference: CTAL-TM v3.0 Syllabus, Section 1.3.3. d) Incorrect. Postponement until project completion removes the benefit of early risk mitigation. Reference: CTAL-TM v3.0 Syllabus, Section 1.3.3.	TM-1.3.3	K2	1
10	c	a) Incorrect. Expert interviews normally collect individual experts' assessments in separate conversations rather than a joint session with multiple stakeholders. Reference: CTAL-TM v3.0 Syllabus, Section 1.3.2. b) Incorrect. Brainstorming is used as one method within the described session; it does not identify the overarching organized session format. Reference: CTAL-TM v3.0 Syllabus, Section 1.3.2. c) Correct. A risk workshop is a planned, facilitated session in which multiple stakeholders collaboratively identify and document product quality risks systematically. Reference: CTAL-TM v3.0 Syllabus, Section 1.3.2. d) Incorrect. Using experience from previous projects draws on historical information and lessons learned rather than a joint facilitated session. Reference: CTAL-TM v3.0 Syllabus, Section 1.3.2.	TM-1.3.2	K2	1

11	d	a) Incorrect. Risk B has high exposure and regulatory relevance and cannot simply be accepted; this combination also lacks appropriate data integrity testing. Reference: CTAL-TM v3.0 Syllabus, Section 1.3.4. b) Incorrect. Workshops, component tests, and guideline reviews do not sufficiently address the respective product risks at the required level; Risk D is addressed too late. Reference: CTAL-TM v3.0 Syllabus, Section 1.3.4. c) Incorrect. The combination particularly underestimates data integrity and load risks and does not align effort with exposure and compliance. Reference: CTAL-TM v3.0 Syllabus, Section 1.3.4. d) Correct. The measures match each risk type. They consider exposure, regulatory relevance, user impact, and the limited test environment; the comparatively low Risk C is deliberately accepted as residual risk. Reference: CTAL-TM v3.0 Syllabus, Section 1.3.4.	TM-1.3.4	K4	3
12	a	a) Correct. The option derives priority, test type, test depth, and resource allocation directly from the stated risk profiles. Reference: CTAL-TM v3.0 Syllabus, Section 1.3.4. b) Incorrect. Historical defect data is useful, but uniform regression and workload balancing alone ignore current risk differences. Reference: CTAL-TM v3.0 Syllabus, Section 1.3.4. c) Incorrect. Visibility and deadlines do not replace risk-based selection of techniques and test depth. Reference: CTAL-TM v3.0 Syllabus, Section 1.3.4. d) Incorrect. The risks are already known. Postponed prioritization disregards available information and the purpose of risk-based testing. Reference: CTAL-TM v3.0 Syllabus, Section 1.3.4.	TM-1.3.4	K4	3

13	a	a) Correct. This describes the essential difference in formality, documentation, and involvement; project context determines the appropriate approach. Reference: CTAL-TM v3.0 Syllabus, Section 1.3.5. b) Incorrect. Lightweight techniques are not inherently superior; selection depends on context. Reference: CTAL-TM v3.0 Syllabus, Section 1.3.5. c) Incorrect. The approaches differ precisely in their degree of formality, documentation, and involvement. Reference: CTAL-TM v3.0 Syllabus, Section 1.3.5. d) Incorrect. Besides team preferences, risk, project size, iteration duration, and organizational constraints are decisive. Reference: CTAL-TM v3.0 Syllabus, Section 1.3.5.	TM-1.3.5	K2	1
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Section: Project Test Strategy					
14	b	a) Incorrect. Tools and team composition are planning factors but do not form the core of strategic selection of the test approach. Reference: CTAL-TM v3.0 Syllabus, Section 1.4.1. b) Correct. Test levels, test types, and test techniques are selected to match risks, quality objectives, and context and form essential elements of the test approach. Reference: CTAL-TM v3.0 Syllabus, Section 1.4.1. c) Incorrect. Entry and exit criteria, tools, and estimation primarily belong to the test plan and operational planning. Reference: CTAL-TM v3.0 Syllabus, Section 1.4.1. d) Incorrect. Reviews, documentation, and KPIs can be relevant, but this combination addresses project risks less directly. Reference: CTAL-TM v3.0 Syllabus, Section 1.4.1.	TM-1.4.1	K2	1
15	a	a) Correct. The approach fully implements the organizational test strategy in the project context: early formal reviews and static analysis, risk-appropriate dynamic test techniques, bidirectional traceability at all relevant test levels, systematic defect classification, and automated regression testing. Reference: CTAL-TM v3.0 Syllabus, Section 1.4.2. b) Incorrect. The organizational strategy requires early static analysis of safety-related work products. Starting only after system integration is complete fails to meet this requirement and detects defects unnecessarily late. Reference: CTAL-TM v3.0 Syllabus, Section 1.4.2. c) Incorrect. Early formal reviews and static analysis follow the strategy. However, traceability is maintained only for system and system integration tests. Supplier summary reports do not ensure bidirectional traceability between safety requirements, component tests, results, and defect reports at component level. Reference: CTAL-TM v3.0 Syllabus, Section 1.4.2. d) Incorrect. Restricting formal reviews and static analysis to system-level safety-related work products and using simplified peer reviews for supplier components fails to meet the strategy. Bidirectional traceability also starts only at system integration and therefore does not cover all relevant test levels. Reference: CTAL-TM v3.0 Syllabus, Section 1.4.2.	TM-1.4.2	K4	3

16	a	a) Correct. The approach most comprehensively considers the organizational risk-based test strategy and key project factors. It combines suitable test levels, targeted automation, continuous sprint testing, risk-based privacy and security tests, early hospital interface testing, and formal stakeholder-supported acceptance testing with defined criteria and auditable FDA evidence. Reference: CTAL-TM v3.0 Syllabus, Section 1.4.2. b) Incorrect. The approach includes risk prioritization and formal FDA evidence. However, predominantly manual execution on every available device and operating system combination does not fit the fixed budget and underuses existing automation capabilities. Testing hospital interfaces only in the final system test increases the risk of detecting integration problems late. Reference: CTAL-TM v3.0 Syllabus, Section 1.4.2. c) Incorrect. Risk-oriented, continuous exploratory testing is generally suitable for sprints. However, session records do not provide sufficiently planned, repeatable, and traceable validation with defined entry and exit criteria. The approach therefore ensures neither appropriate formal acceptance testing nor sufficient auditable FDA validation evidence. Reference: CTAL-TM v3.0 Syllabus, Section 1.4.2. d) Incorrect. The approach offers structured functional techniques, automation, and auditable results. It contradicts the organizational strategy by explicitly omitting risk-based privacy and security tests. It is also unclear how combined system and acceptance testing ensures stakeholder-supported validation with defined entry and exit criteria for FDA approval. Reference: CTAL-TM v3.0 Syllabus, Section 1.4.2.	TM-1.4.2	K4	3
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17	b	a) Incorrect. The objective has measurable criteria and a deadline but is not achievable with available resources and capabilities. The test environment cannot generate 200 transactions per second. Moreover, the complete absence of all security vulnerabilities cannot be conclusively demonstrated. Reference: CTAL-TM v3.0 Syllabus, Section 1.4.3. b) Correct. The objective is specific and measurable because it defines the permitted security status, load, response time threshold, and required proportion of responses. The environment, current performance, tools, specialists, and time period make it achievable. It is relevant to release and timely by the end of system testing, satisfying all S.M.A.R.T. criteria. Reference: CTAL-TM v3.0 Syllabus, Section 1.4.3. c) Incorrect. The objective includes a deadline and relative performance value, but the leading competitors and comparison method are unspecified. “Greater security” lacks a measurable acceptance criterion. Achievability also cannot be assessed from the available information. Reference: CTAL-TM v3.0 Syllabus, Section 1.4.3. d) Incorrect. “Before release” provides a deadline, but the benchmarks and target values are not established when the objective is defined. The objective is therefore insufficiently specific and measurable, and achievability cannot be assessed. Reference: CTAL-TM v3.0 Syllabus, Section 1.4.3.	TM-1.4.3	K3	2
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18	a	a) Correct. The objective specifically addresses audio lesson loading time under defined network conditions. The 95th percentile, two-second threshold, and at least 38 of 40 predefined configurations make it measurable. The device laboratory, automated tests, current result of 36 configurations, and four-week period make it achievable. It is relevant to required performance on supported devices and timely by completion of system testing, satisfying all S.M.A.R.T. criteria. Reference: CTAL-TM v3.0 Syllabus, Section 1.4.3. b) Incorrect. The objective specifies a deadline, device scope, and usability evaluation activities. However, it provides neither a quantitative usability indicator nor an acceptance threshold for improved onboarding. Implementing or documenting improvements does not demonstrate achievement of a measurable test objective. Reference: CTAL-TM v3.0 Syllabus, Section 1.4.3. c) Incorrect. The objective specifies a deadline, review scope, and reviewer group. However, “cultural and linguistic appropriateness” lacks defined evaluation criteria and an acceptance threshold. Unspecified professional judgment does not enable sufficiently unambiguous and measurable evaluation. Availability of the required native speakers is also not established. Reference: CTAL-TM v3.0 Syllabus, Section 1.4.3. d) Incorrect. The objective includes a deadline, relevant quality concern, and possible information sources. However, “significantly increase” is not quantified. A baseline, minimum improvement, and acceptance threshold are missing, so the evaluation activities cannot objectively determine achievement. Reference: CTAL-TM v3.0 Syllabus, Section 1.4.3.	TM-1.4.3	K3	2
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Section: Improving the Testing Process					
19	b	a) Incorrect. Scope, support, and budget belong to the initiating phase and are already in place. Reference: CTAL-TM v3.0 Syllabus, Section 1.5.1. b) Correct. After diagnosis, assessment results are used to refine objectives and plan and prioritize improvement actions. Reference: CTAL-TM v3.0 Syllabus, Section 1.5.1. c) Incorrect. Diagnosis has already been completed through internal assessment, retrospectives, and metrics analysis. Reference: CTAL-TM v3.0 Syllabus, Section 1.5.1. d) Incorrect. Training and piloting belong to implementation and follow planning. Reference: CTAL-TM v3.0 Syllabus, Section 1.5.1.	TM-1.5.1	K2	1
20	b	a) Incorrect. This is a model-based approach comparing the test process with an external improvement model. Reference: CTAL-TM v3.0 Syllabus, Section 1.5.3. b) Correct. The goal-question-metric approach defines measurement goals, derives questions and metrics, and uses collected project data to derive targeted, prioritized improvement actions. Reference: CTAL-TM v3.0 Syllabus, Section 1.5.3. c) Incorrect. Adopting external practices without assessment is not analytical-based improvement using project-specific data. Reference: CTAL-TM v3.0 Syllabus, Section 1.5.3. d) Incorrect. Subjective feedback can be useful but does not replace systematic data analysis required by an analytical approach. Reference: CTAL-TM v3.0 Syllabus, Section 1.5.3.	TM-1.5.3	K2	1

21	a, c	a) Correct. Analyzing where and why the test process failed to uncover the problems supports root cause analysis and targeted improvement. Reference: CTAL-TM v3.0 Syllabus, Section 1.5.4. b) Incorrect. Immediate changes without root cause analysis may address symptoms but do not provide robust process improvement. Reference: CTAL-TM v3.0 Syllabus, Section 1.5.4. c) Correct. Coverage metrics objectively indicate whether critical features were sufficiently tested and support defining improvement actions. Reference: CTAL-TM v3.0 Syllabus, Section 1.5.4. d) Incorrect. Attributing the causes solely to users prevents objective evaluation of the product and test process. Reference: CTAL-TM v3.0 Syllabus, Section 1.5.4. e) Incorrect. A UI redesign is a product development action, rather than a focus of a retrospective to improve the test process. Reference: CTAL-TM v3.0 Syllabus, Section 1.5.4.	TM-1.5.4	K3	2
22	a	a) Correct. The approach combines objective data, root cause analysis, and prioritization of corrective actions, leading to actionable improvements. Reference: CTAL-TM v3.0 Syllabus, Section 1.5.4. b) Incorrect. Senior management involvement can help but does not replace analysis or concrete actions. Reference: CTAL-TM v3.0 Syllabus, Section 1.5.4. c) Incorrect. Restricting the focus to major defects ignores systematic causes and recurring smaller process weaknesses. Reference: CTAL-TM v3.0 Syllabus, Section 1.5.4. d) Incorrect. Models provide guidance but must be adapted to project context and the problems actually identified. Reference: CTAL-TM v3.0 Syllabus, Section 1.5.4.	TM-1.5.4	K3	2

Section: Test Tools					
23	b	a) Incorrect. Incremental introduction after a successful pilot and process alignment reduces risks and follows good introduction practice. Reference: CTAL-TM v3.0 Syllabus, Section 1.6.1. b) Correct. Replacing a tool without assessing its fit with organizational processes creates high introduction risks and is not a best practice. Reference: CTAL-TM v3.0 Syllabus, Section 1.6.1. c) Incorrect. Objective selection criteria enable transparent evaluation aligned with needs. Reference: CTAL-TM v3.0 Syllabus, Section 1.6.1. d) Incorrect. A pilot checks suitability, benefits, and integration risks before wider introduction. Reference: CTAL-TM v3.0 Syllabus, Section 1.6.1.	TM-1.6.1	K2	1
24	c	a) Incorrect. Tool A is likely to meet central regulatory and schedule requirements. However, the plan does not check applicability of qualification evidence, costs, benefits, or vendor dependency before selection and introduction. It therefore lacks a robust assessment of key requirements and risks. Reference: CTAL-TM v3.0 Syllabus, Section 1.6.3. b) Incorrect. Tool B is below the cost limit at €260,000 and promises a higher efficiency gain of 40%. However, introduction and qualification may use all 20 weeks until regulatory approval. With little qualification experience and low risk tolerance, accepting these schedule, compliance, and maintenance risks is inappropriate. Reference: CTAL-TM v3.0 Syllabus, Section 1.6.3. c) Correct. Tool A meets the mandatory financial, regulatory, and schedule criteria. Piloting before final selection checks qualification evidence applicability, migration, workflow support, total cost of ownership, and expected benefits. Contractual support, data export, and exit provisions further reduce vendor dependency risk. Reference: CTAL-TM v3.0 Syllabus, Section 1.6.3. d) Incorrect. Suitable qualification evidence is mandatory and cannot be compensated for by cost or efficiency advantages. An equally weighted matrix could favor Tool B despite evidence not being available in time. Evidence arriving after regulatory approval contradicts the mandatory compliance requirement and prevents compliant use by the deadline. Reference: CTAL-TM v3.0 Syllabus, Section 1.6.3.	TM-1.6.3	K4	3

25	c	a) Incorrect. X has the highest ROI at 198% but meets neither the mandatory full traceability requirement nor strong security testing support. As exclusion criteria, these requirements cannot be compensated for by higher ROI. Reference: CTAL-TM v3.0 Syllabus, Section 1.6.3. b) Incorrect. Y has positive ROI of 178% and full traceability but only limited security testing support. Supplementary manual security checks do not replace the expressly required strong tool support. Reference: CTAL-TM v3.0 Syllabus, Section 1.6.3. c) Correct. Z is the only tool that meets both mandatory requirements while achieving positive ROI of 160% and the greatest reduction in manual effort. Targeted onboarding, support agreements, and a maintenance plan address remaining introduction and operational risks. Reference: CTAL-TM v3.0 Syllabus, Section 1.6.3. d) Incorrect. Full traceability and strong security testing support are mandatory requirements that must be applied as exclusion criteria before benefit analysis. They cannot be equally weighted and compensated for by advantages in ROI, purchase price, or usability. Positive ROI for all tools does not change this. Reference: CTAL-TM v3.0 Syllabus, Section 1.6.3.	TM-1.6.3	K4	3
26	c	a) Incorrect. Tool ownership and conventions are established during acquisition and introduction. Reference: CTAL-TM v3.0 Syllabus, Section 1.6.4. b) Incorrect. Interoperability, backup, and restoration belong to Support and maintenance. Reference: CTAL-TM v3.0 Syllabus, Section 1.6.4. c) Correct. Relevant historical data must be preserved, archived, or migrated before decommissioning, which is characteristic of retirement. Reference: CTAL-TM v3.0 Syllabus, Section 1.6.4. d) Incorrect. Adapting to new requirements is an evolution activity for an active tool. Reference: CTAL-TM v3.0 Syllabus, Section 1.6.4.	TM-1.6.4	K2	1

Section: Test Metrics					
27	a	a) Correct. Metric 1 monitors progress against the plan; metric 2 supports assessment of objectives and exit criteria; metric 3 reports product risk status; metric 4 reports defect status. Reference: CTAL-TM v3.0 Syllabus, Section 2.1.1. b) Incorrect. Metric 2 compares actual automated test cases with planned automated test cases and supports assessment of test objectives at test completion (B), rather than reporting product risk status (C). Metric 3 indicates the percentage of risks not yet completely tested and therefore directly supports product risk reporting (C). Although this information can also inform test completion decisions, the intended mapping is 2B and 3C. Reference: CTAL-TM v3.0 Syllabus, Sections 2.1.1 and 2.1.3. c) Incorrect. Actual versus planned effort belongs to monitoring and control rather than primarily to completion; the automation metric supports completion assessment. Reference: CTAL-TM v3.0 Syllabus, Section 2.1.1. d) Incorrect. Untested risks describe product risk status, whereas resolved versus all defects describes defect status. Reference: CTAL-TM v3.0 Syllabus, Section 2.1.1.	TM-2.1.1	K2	1
28	a	a) Correct. Metrics measure and monitor progress, objective achievement, and exit criteria and therefore provide a basis for decisions. Reference: CTAL-TM v3.0 Syllabus, Section 2.1.2. b) Incorrect. Metrics provide information; concrete corrective actions are decided through test control. Reference: CTAL-TM v3.0 Syllabus, Section 2.1.2. c) Incorrect. Historical data is a benefit but not the primary, ongoing purpose of test metrics. Reference: CTAL-TM v3.0 Syllabus, Section 2.1.2. d) Incorrect. Reprioritization is a possible control action but is not automatically triggered by every metric or defect. Reference: CTAL-TM v3.0 Syllabus, Section 2.1.2.	TM-2.1.2	K2	1

29	b, c	a) Incorrect. Additional code coverage details increase technical depth but do not directly answer questions about risk mitigation and release readiness. Reference: CTAL-TM v3.0 Syllabus, Section 2.1.3. b) Correct. Linking data with product risks reveals which risks have been mitigated through testing and fixing and which remain as residual risks. Reference: CTAL-TM v3.0 Syllabus, Section 2.1.3. c) Correct. Risk-oriented visualizations connect progress, defect status, acceptance criteria, and exit criteria and support go/no-go decisions. Reference: CTAL-TM v3.0 Syllabus, Section 2.1.3. d) Incorrect. Subjective stability ratings should not replace objective coverage and risk data. Reference: CTAL-TM v3.0 Syllabus, Section 2.1.3. e) Incorrect. Raw data and complete matrices increase information volume but not necessarily transparency or decision relevance. Reference: CTAL-TM v3.0 Syllabus, Section 2.1.3.	TM-2.1.3	K4	3
30	c	a) Incorrect. These metrics are useful but omit requirements coverage and planned-versus-actual effort comparison, particularly important in a document-centric context. Reference: CTAL-TM v3.0 Syllabus, Section 2.1.3. b) Incorrect. Change frequency for stable requirements is of limited value; code coverage alone is insufficient for regulatory decisions. Reference: CTAL-TM v3.0 Syllabus, Section 2.1.3. c) Correct. The combination comprehensively covers risk-based product readiness, defect status, progress, requirements traceability, and resource control. Reference: CTAL-TM v3.0 Syllabus, Section 2.1.3. d) Incorrect. These metrics provide useful information, but explicitly omit requirements coverage and actual versus planned test effort. For system testing in this document-centric, regulated project, requirements coverage supports assessment of whether specified requirements have been addressed by tests, while the effort comparison supports monitoring of resource use against the plan. Code coverage does not replace requirements coverage. Option c) therefore provides the more appropriate combination. Reference: CTAL-TM v3.0 Syllabus, Section 2.1.3.	TM-2.1.3	K4	3

Section: Test Estimation					
31	c	a) Incorrect. Availability of test automation, tools, and environments is a material development process factor that can influence effort. See Section 2.2.2, under “Development process”, bullet 3. b) Incorrect. Test object size and product domain complexity are product-related estimation factors. See Section 2.2.2, under “Product”, bullets 2 and 3. c) Correct. The mere number of previous retrospectives shows neither development process stability and maturity nor effects on future test activities. Their content is also unknown. It therefore provides the weakest basis of the four inputs. The syllabus instead identifies stability and maturity of development processes. See Section 2.2.2, under “Development process”, bullet 1 (inference). d) Incorrect. Competencies and experience of the people involved, particularly with similar projects and products, are people-related factors affecting effort. See Section 2.2.2, under “People”, bullet 2.	TM-2.2.2	K2	1

32	b, d	a) Incorrect. Script count and execution time can support the regression portion. Extrapolating it to all system testing neglects risk-based and exploratory tests. See Section 2.2.3, first paragraph on covering all test activities and the paragraph on context-dependent technique selection. b) Correct. Comparable historical data supports metrics-based estimation. Adjusting it for scope and risks considers current context and changed information. See Section 2.2.3, under “Data availability”, bullet 2, and the paragraph on regularly updating estimates. c) Incorrect. The reference value comes only from exploratory tests. Applying it to risk-based and regression tests assumes the same effort per user story without justification. See Section 2.2.3, first paragraph on all test activities and under “Data availability”, bullet 2. d) Correct. Joint estimation uses experience at both locations for exploratory sessions and regression tests; documented assumptions make it reviewable. See Section 2.2.3, under “Expert availability”, bullet 3, and the paragraphs on documenting assumptions and applying estimation techniques across locations. e) Incorrect. Previous total effort can serve as a baseline, but new feature count alone considers neither changed risks nor new regression effort. The adjustment is insufficient. See Section 2.2.3, under “Data availability”, bullet 2, and the paragraphs on changing input parameters and regularly updating estimates.	TM-2.2.3	K4	3
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33	c	a) Incorrect. Three-point estimation covers all work packages and considers uncertainty. However, detailed comparison data is used only afterward for plausibility checking; the known additional effort is derived less directly than in c). See Section 2.2.3, “Data availability”, selection factor 2, and “Estimation error”, selection factor 1. b) Incorrect. A historical ratio is usable, but averaging over total scope obscures additional integration and regression effort. Detailed data permits more targeted adjustment. See Section 2.2.3, “Data availability”, selection factor 2, and the first paragraph on estimating all test activities and documenting assumptions. c) Correct. Comparison data permits estimating all activities in person-hours. Separate effort figures allow targeted adjustments for additional interfaces, with experienced testers reviewing assumptions today. A justified total estimate can therefore be delivered on time. See Section 2.2.3, “Data availability”, selection factor 2, “Time constraints”, selection factor 5, and the first paragraph on covering all activities and documenting assumptions. d) Incorrect. Experienced testers can estimate all work packages on time. Comparing with historical totals uses the activity-specific data less directly for additional interfaces than c). See Section 2.2.3, “Expert availability”, selection factor 3, and “Data availability”, selection factor 2.	TM-2.2.3	K4	3
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Section: Defect Management					
34	c	a) Incorrect. A and B are reversed: the first failure precedes implementation of the logic and is tracked in D-87. After READY FOR TESTING, the confirmed failure in B must be reported as a defect under the stated process. See Section 2.3.1, paragraphs on anomalies and component tests still failing during development. b) Incorrect. A, B, and C are mapped correctly. In D, F-204 must be reopened after failed confirmation testing; a new report would duplicate the same defect. See Section 2.3.1, under “RESOLVED”, bullet 4, and the paragraph on the additional “REOPENED” state. c) Correct. In A, the initial failure still belongs to implementation and is tracked in D-87. B and C require new reports under the process rules. In D, F-204 is reopened after failed confirmation testing. See Section 2.3.1, paragraphs on anomalies and failing component tests during development, under “RESOLVED”, bullet 4, and the paragraph on “REOPENED”. d) Incorrect. A, B, and D are mapped correctly. C requires a report for the confirmed anomaly in the approved test basis; correction alone does not track the defect. See Section 2.3.1, paragraphs on early defects in requirements specifications and recording reports according to a defined process.	TM-2.3.1	K3	2

35	b	a) Incorrect. OPEN is missing after DEFERRED. Under the stated process, reactivation requires another review and prioritization before assignment. See Section 2.3.1, under “OPEN”, bullet 1, and the paragraph on organization-dependent transition rules (here: another review). b) Correct. F-312 is deferred from OPEN and reviewed there again on activation. Processing proceeds through IN PROGRESS to RESOLVED. Failed confirmation testing leads to REOPENED, followed directly by IN PROGRESS when fixing resumes. See Section 2.3.1, under “OPEN”, “IN PROGRESS”, and “RESOLVED”, bullets 1, 2, and 4, and the paragraph on additional defect states. c) Incorrect. The old RESOLVED → OPEN transition is used after failed confirmation testing. The new REOPENED state is intended to identify this case. See Section 2.3.1, under “RESOLVED”, bullet 4, and the paragraph on “REOPENED” and context-dependent transition rules. d) Incorrect. REOPENED is correct, but subsequent OPEN is unnecessary: F-312 has already been assessed and prioritized, so fixing can start immediately. See Section 2.3.1, under “OPEN” and “IN PROGRESS”, bullets 1 and 2, and the paragraph on context-dependent transitions (here: direct continuation).	TM-2.3.1	K3	2
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36	b	a) Incorrect. The Test Manager may own defect management and provide information; in this project, decisions on validity, fixing, and responsibility should be made by a cross-functional team. Deciding alone does not adequately involve development and the supplier. See Section 2.3.2, paragraph 1 on committee composition and paragraph 2 on decisions. b) Correct. The committee combines the roles involved, assesses validity, and decides on fixing, rejection or deferral, responsibility, and priority, balancing benefits, risks, and costs. See Section 2.3.2, paragraph 1 on composition and paragraph 2 on decisions and prioritization. c) Incorrect. Severity alone does not replace balancing benefits, risks, and costs; separate uncoordinated workflows hinder common defect management. See Section 2.3.2, paragraph 2 and the closing paragraph on a well-defined workflow. d) Incorrect. The tool supports recording and processing but does not replace communication or decisions by the roles involved. See Section 2.3.2, closing paragraph on the interaction of tools, communication, workflow, and the defect management team.	TM-2.3.2	K2	1
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37	a	a) Correct. In a closely collaborating Agile team, an anomaly may first be clarified directly with the developer and potentially fixed promptly. If fixing within the same sprint is not possible, a report should be created; some teams already use the discovery day as the limit. See Section 2.3.3, opening paragraph on informal communication and first list, bullet 2, on defects that cannot be fixed in the same iteration. b) Incorrect. Focusing on the sprint backlog alone does not justify delaying recording if the anomaly cannot be fixed in the sprint. The team agrees triggers for reports. See Section 2.3.3, first list, bullets 1 and 2, and the paragraph on team-agreed report triggers. c) Incorrect. Apparently minor impact alone does not justify postponing a formal report. The agreed process must consider product risks and whether fixing in the same iteration is possible. See Section 2.3.3, first list, bullet 2, and second list, bullet 6 (“Product risks”). d) Incorrect. A confirmed defect should not remain unrecorded simply because of the next sprint planning. If it cannot be fixed in the current iteration, create a report; it can be prioritized in the product backlog for later work. See Section 2.3.3, first list, bullet 2, and the paragraph on adding unfixed defects to the product backlog.	TM-2.3.3	K2	1
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38	a	a) Correct. The syllabus describes a common tool for multiple teams as ideal. Agreed states and fields enable a shared view of reports for the product release. If different tools are necessary, they should be synchronized. See Section 2.3.4, under “Tools to be used for defect management”, bullet 1. b) Incorrect. Independent approaches without common alignment hinder visibility and coordination for the shared release. Different tools should be synchronized where necessary and work aligned to the same project plan. See Section 2.3.4, under “Tools to be used for defect management”, bullet 1, and “Alignment and transparency”, bullet 3. c) Incorrect. An exclusively sequential process does not accommodate faster Agile increments. Prioritization meetings may need to be more frequent, and all teams should participate in planning. See Section 2.3.4, under “Defect prioritization”, bullet 2, and “Alignment and transparency”, bullet 3. d) Incorrect. A weekly report in one team’s format does not itself create aligned prioritization or a shared view. Agile teams may need more frequent meetings; all teams’ plans should be transparent and aligned. See Section 2.3.4, under “Defect prioritization”, bullet 2, and “Alignment and transparency”, bullet 3.	TM-2.3.4	K2	1
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39	b	a) Incorrect. The title and description are too vague and lack reproduction details. CRITICAL does not fit the specified classification because a workaround exists. See Section 2.3.5, under “To manage the defect report”, bullets 1–4. b) Correct. The title and description identify the failure and allow reproduction. The important function is severely impaired despite a workaround (HIGH). Approximately 80 affected daily orders would require 20 staff-hours manually, but only four are available; a fix before release (P1) is therefore necessary. See Section 2.3.5, under “To manage the defect report”, bullets 1–4. c) Incorrect. The title and description are suitable, but MEDIUM and P2 underestimate the impact: the workaround requires 20 staff-hours daily while only four are available. See Section 2.3.5, under “To manage the defect report”, bullets 3 and 4. d) Incorrect. HIGH and P1 fit the situation. However, a component name and log excerpt do not replace a detailed description that allows reproduction. See Section 2.3.5, under “To manage the defect report”, bullets 1 and 2.	TM-2.3.5	K3	2
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40	a, e	a) Correct. The specific test item, version number, and environment are technical information supporting reproduction and analysis. Relevant settings specify the environment in this context. They are missing in the scenario and particularly useful to suppliers. See Section 2.3.5, under “To help defect resolution”, bullet 1. b) Incorrect. A business impact summary can support project status assessment and prioritization but does not directly provide technical information for reproduction or root cause analysis. See Section 2.3.5, under “To assess the overall project status”, bullet 2. c) Incorrect. Affected component or subsystem information can support fixing, but the tool already enforces its recording. It is therefore not missing. See Section 2.3.5, under “To help defect resolution”, bullet 1. d) Incorrect. Links to related defects and known issues can support analysis, but the tool already maintains them automatically. They are therefore not missing either. See Section 2.3.5, under “Additional important data items are often created by the defect management tool”, bullet 8. e) Correct. The syllabus explicitly provides for a detailed description with steps to reproduce the failure. Expected and actual results usefully supplement the steps by making the deviation clear and supporting technical analysis; this supplement is not explicitly named in that bullet. The information is missing and directly supports suppliers. See Section 2.3.5, under “To manage the defect report”, bullet 2.	TM-2.3.5	K3	2
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41	c	a) Incorrect. Open report count mainly describes the backlog and does not show the phases of defect introduction, detection, and removal. Reference: CTAL-TM v3.0 Syllabus, Section 2.3.6. b) Incorrect. Severity of production defects describes impact but does not directly assess detection and containment in earlier development and test phases. Reference: CTAL-TM v3.0 Syllabus, Section 2.3.6. c) Correct. Comparing introduction, detection, and removal phases shows where defects arise and how effectively they are detected and contained within the same or later phases. It supports targeted improvements in code reviews and early testing and measures to reduce defect-related costs. Reference: CTAL-TM v3.0 Syllabus, Section 2.3.6. d) Incorrect. Reopened reports help assess fix quality and confirmation testing but do not directly show how detection can shift to earlier phases. Reference: CTAL-TM v3.0 Syllabus, Section 2.3.6.	TM-2.3.6	K2	1
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Section: Test Team					
42	c	a) Incorrect. Evaluating testing-specific traceability and coverage primarily demonstrates professional competence. Reference: CTAL-TM v3.0 Syllabus, Section 3.1.1. b) Incorrect. Conflict resolution belongs to social competence. Reference: CTAL-TM v3.0 Syllabus, Section 3.1.1. c) Correct. Analytical and conceptual skills for independently solving complex or new tasks are typical methodological competencies. Reference: CTAL-TM v3.0 Syllabus, Section 3.1.1. d) Incorrect. Updating test scripts is a technical testing skill and therefore professional competence. Reference: CTAL-TM v3.0 Syllabus, Section 3.1.1.	TM-3.1.1	K2	1
43	b, d	a) Incorrect. Automation and test data are useful but do not match the central stated responsibilities for risk analysis, formal documentation, and traceability. Reference: CTAL-TM v3.0 Syllabus, Section 3.1.2. b) Correct. Safety standards and audit-compliant documentation are indispensable for regulatory traceability in the railway project. Reference: CTAL-TM v3.0 Syllabus, Section 3.1.2. c) Incorrect. Agile collaboration is relevant, but the Integration Lead already covers the specific alignment of user stories, acceptance criteria, and integration behavior. Reference: CTAL-TM v3.0 Syllabus, Section 3.1.2. d) Correct. The departed role must derive risk-based system integration tests from safety and interface requirements; risk-based testing and black-box test design are central. Reference: CTAL-TM v3.0 Syllabus, Section 3.1.2. e) Incorrect. Interface simulators can be useful, but cross-team coordination is already covered and is not the most urgent competency need. Reference: CTAL-TM v3.0 Syllabus, Section 3.1.2.	TM-3.1.2	K4	3

44	a	a) Correct. The combination addresses all essential context factors: automation for frequent changes and external APIs, risk-based analysis, regulatory documentation and traceability, security and privacy testing, collaboration across time zones, and adaptability to Agile and sequential parts. Reference: CTAL-TM v3.0 Syllabus, Section 3.1.2. b) Incorrect. The combination covers compliance, security, distributed collaboration, and communication across lifecycle models. However, automation limited to maintaining existing scripts is insufficient for frequent changes, repeated regression testing, and external API integration. Reference: CTAL-TM v3.0 Syllabus, Section 3.1.2. c) Incorrect. Automation, security competence, distributed collaboration, and adaptability fit the context. Release-level summaries, however, do not provide sufficient traceability between requirements, tests, results, and defects and do not meet auditability requirements. Reference: CTAL-TM v3.0 Syllabus, Section 3.1.2. d) Incorrect. Automation, traceability, security competence, and remote communication are relevant. Fixed handovers, preapproved plans, and exclusively formal change procedures do not offer necessary adaptability for Agile services, frequent requirements changes, and external API integration. Reference: CTAL-TM v3.0 Syllabus, Section 3.1.2.	TM-3.1.2	K4	3
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45	d	a) Incorrect. The mappings are reversed. The technical quality of the strategy demonstrates professional competence. Handling feedback may indicate personal competence but is not the primary focus of this demonstration task. Reference: CTAL-TM v3.0 Syllabus, Section 3.1.3. b) Incorrect. Technical expertise is professional rather than personal competence; the mapping is incorrect. Reference: CTAL-TM v3.0 Syllabus, Section 3.1.3. c) Incorrect. Collaboration belongs to social rather than professional competence; creativity alone does not adequately describe the methodological requirement. Reference: CTAL-TM v3.0 Syllabus, Section 3.1.3. d) Correct. Correct testing content demonstrates professional competence. Independent analysis, conceptual development, and structuring demonstrate methodological competence. These are the primary areas assessed by the syllabus demonstration task. Reference: CTAL-TM v3.0 Syllabus, Section 3.1.3.	TM-3.1.3	K2	1
46	c	a) Incorrect. Social and personal competence develop more effectively through interaction, feedback, training, or coaching than through self-study alone. Reference: CTAL-TM v3.0 Syllabus, Section 3.1.4. b) Incorrect. Peer learning involves colleagues exchanging knowledge and experience and learning from each other; individual structured coaching is a different approach. Reference: CTAL-TM v3.0 Syllabus, Section 3.1.4. c) Correct. Training and education, as well as self-study, are particularly suitable for conveying predefined professional and methodological knowledge. Reference: CTAL-TM v3.0 Syllabus, Section 3.1.4. d) Incorrect. Coaching provides individual advice and support; simultaneous knowledge transfer to a group is more characteristic of training. Reference: CTAL-TM v3.0 Syllabus, Section 3.1.4.	TM-3.1.4	K2	1

47	b	a) Incorrect. Conflict resolution is particularly needed in the storming stage. Reference: CTAL-TM v3.0 Syllabus, Section 3.1.5. b) Correct. The forming stage requires willingness to support new members as they join the test team and orient themselves. Reference: CTAL-TM v3.0 Syllabus, Section 3.1.5. c) Incorrect. Transferring personal responsibility through delegation is particularly characteristic of the performing stage. Reference: CTAL-TM v3.0 Syllabus, Section 3.1.5. d) Incorrect. Ensuring agreed values and rules through disciplined and goal-oriented leadership is particularly associated with the norming stage. Reference: CTAL-TM v3.0 Syllabus, Section 3.1.5.	TM-3.1.5	K2	1
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Section: Stakeholder Relationships					
48	b	a) Incorrect. Training is prevention and test execution is appraisal; the first two mappings are reversed. Reference: CTAL-TM v3.0 Syllabus, Section 3.2.1. b) Correct. Training prevents defects (1A), system tests detect defects (2B), analysis and fixing before release incur internal failure costs (3D), and reports after release incur external failure costs (4C). Reference: CTAL-TM v3.0 Syllabus, Section 3.2.1. c) Incorrect. Defects reported after release incur external rather than internal failure costs; fixing during integration testing incurs internal rather than external costs. Reference: CTAL-TM v3.0 Syllabus, Section 3.2.1. d) Incorrect. All four examples are assigned to incorrect categories. Reference: CTAL-TM v3.0 Syllabus, Section 3.2.1.	TM-3.2.1	K2	1
49	b	a) Incorrect. \$5,300 adds costs that the scenario says occur alternatively. Cost of quality is also not the same as total testing cost. Reference: CTAL-TM v3.0 Syllabus, Section 3.2.2. b) Correct. Average savings = external failure cost – (appraisal cost + internal failure cost) = \$4,800 – (\$200 + \$300) = \$4,300. Reference: CTAL-TM v3.0 Syllabus, Section 3.2.2. c) Incorrect. Less appraisal increases the risk of substantially higher external failure costs. Reference: CTAL-TM v3.0 Syllabus, Section 3.2.2. d) Incorrect. Many defects found before release can demonstrate the financial benefit of testing; a low detection count does not establish cost efficiency. Reference: CTAL-TM v3.0 Syllabus, Section 3.2.2.	TM-3.2.2	K3	2

50	a, c	a) Correct. Average prevention cost is €200 per avoided defect. Detection and fixing before release costs €400 + €350 = €750, whereas an external defect costs €3,000 on average. Reference: CTAL-TM v3.0 Syllabus, Section 3.2.2. b) Incorrect. Less testing would move more defects into the much more expensive external phase; internal failure cost alone is also not higher than prevention plus appraisal. Reference: CTAL-TM v3.0 Syllabus, Section 3.2.2. c) Correct. Average savings per defect found before release = €3,000 – (€400 + €350) = €2,250. For 70 defects, the modeled financial benefit is €157,500. Reference: CTAL-TM v3.0 Syllabus, Section 3.2.2. d) Incorrect. The greatest savings potential comes from prevention and early detection, rather than reducing internal failure costs in isolation. Reference: CTAL-TM v3.0 Syllabus, Section 3.2.2. e) Incorrect. Defects found before release create measurable financial benefits precisely because high external failure costs are avoided. Reference: CTAL-TM v3.0 Syllabus, Section 3.2.2.	TM-3.2.2	K3	2
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Appendix

Question 7A [Source: CTAL-TM 3.0; SAMPLE EXAM PAPER ; SET A]

7A	a	a) i, ii and iv --- Correct. These are the most effective short-term priorities to support continuous delivery: risk-based monitoring/control (i), faster regression feedback through automation (ii), and clear release decision rules via quality gates (iv). b) i and ii — Not correct. Both are important, but this combination omits (iv), which is critical for consistent release decisions and stakeholder confidence in a daily release context. c) i and iv — Not correct. This set lacks (ii). Without strengthening regression automation, daily releases remain fragile and time-boxes are harder to maintain. d) ii and iv — Not correct. This set lacks (i). Without continuous monitoring, test control cannot effectively steer priorities based on the latest risk and defect information.	TM-1.2.7	K4	3
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Source: Question #6A [Source: CTAL-TM 3.0 ; SAMPLE EXAM PAPER ; SET A]:

6a	1-A, 2-B, 3-C, 4-D	1 – A (Sequential): This is correct because testing does not begin until the requirements phase has been completed and approved, and the project proceeds in clearly distinct phases, culminating in a major release. This corresponds to a sequential approach. 2 – B (Iterative): This is correct because work is carried out in fixed 3-week iterations, testing takes place within each iteration, and an increment is delivered at the end of each one. This corresponds to an iterative approach with testing within the iterations. 3 – C (Hybrid): This is correct because a classic, upfront requirements basis is first established, but work then continues in iterations. This combines sequential and agile/iterative elements, which aligns with the curriculum's definition of a hybrid model. 4 – D (DevOps): This is correct because changes are frequently integrated and delivered very often, and this is supported by automated pipelines and operational monitoring. These are typical DevOps characteristics, including continuous delivery, rapid feedback, and high levels of automation.	TM-1.2.4	K2	1
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Question 36A [Source: CTAL-TM 3.0 ; SAMPLE Exam Paper ; SET A]

36A		Correct sequence: OPEN → IN PROGRESS → RESOLVED → CLOSED Why this order is correct: • OPEN: The defect is logged/recorded and is now visible for triage and assignment. This is the typical initial state after creation of a defect report. • IN PROGRESS: The defect is being analyzed and worked on by developers or relevant stakeholders. This represents the active handling/implementation phase. • RESOLVED: A fix (or another resolution) has been provided and the defect is considered addressed from the development perspective. It may still require verification. • CLOSED: The resolution has been verified/accepted (e.g., by testing or review), and no further action is required. This is a terminal state. Why other sequences would be incorrect (general rationale): • Any sequence that starts with IN PROGRESS is incorrect because work cannot begin before the defect has been logged (OPEN) and made available for assignment. • Any sequence that places CLOSED before RESOLVED is incorrect because closure typically requires a prior resolution (fix/decision) to close against. • Any sequence that ends at RESOLVED is incomplete in this context because RESOLVED is not necessarily terminal; it commonly requires verification before the defect can be CLOSED. • A sequence that includes a terminal state and then continues (e.g., CLOSED followed by another state) would be inconsistent because a terminal state indicates the workflow has ended.	TM-2.3.2	K2	1
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Question #27A [Source: CTAL-TM 3.0; SAMPLE EXAM PAPER; SET A]

27a	1A, 2B, 3C	1. Planned test automation degree is done in test planning. 2. The number of resolved defects vs. total number of defects found is a test monitoring and test control metric. 3. The percentage of actual automated vs. planned automated test cases is a test completion metric. A) Test planning B) Test monitoring and test control C) Test completion	TM-2.1.1	K2	1
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