TMMi
FOUNDATION

TMMi (Lead) Assessor
Re-Accredition Sample Exam

#SuccessWithTMMi

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Introduction

Upon renewal of a TMMi assessor or TMMi lead assessor accreditation, a number of experience hours is required to become re-accredited. The TMMi Foundation has created an alternative route for TMMi assessors and lead assessors who would like to renew their accreditation, but do not meet the requirement regarding experience hours.

In this alternative route, the (lead) assessors will be required to refresh their knowledge of how to perform TMMi assessments and pass a TMMi re-accreditation exam. To achieve this, the (lead) assessor will receive a TAMAR study material slide deck from the accreditation office and refer to their original TMMi Assessor training course study materials for more detail. Upon completion of the refreshment self-study, the (lead) assessor will request a multiple-choice TMMi re-accreditation exam from the accreditation office. The exam will be an open-book exam in which study materials may be referred to get the best answer. The completed exam shall be submitted to the accreditation office for marking.

This document can be used in preparation for the re-accreditation exam. As with the official exam, it consists of 20 questions concerning various topics described in TAMAR. It can be used to check whether the candidate is ready for the official exam, or needs to do some more study (and if so in which areas). The re-accreditation sample exam paper is intended to mirror the official re-accreditation exam paper.

A 70% pass mark (14 questions correctly answered) is required for an assessor to be able to proceed to retain their TMMi accreditation. An 80% pass mark (16 questions correctly answered) is required for a lead assessor to be able to proceed to retain their TMMi accreditation. More information can be found in the TMMi (Lead) Assessor Accreditation Criteria document.)

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Revisions

This section summarizes the key revisions between releases this document.
This section is provided for information purposes only.

Release	Revision Notes
V1.0	The first released version of the "TMMi (Lead) Assessor Re-accreditation Sample Exam"

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TMMi (Lead-)Assessor Re-accreditation Sample Exam

Assessment Types Examined

Question 1: In the context of formal TMMi assessments, what criteria are used to determine if a specific or generic practice has sufficient data coverage?

Number of correct answers: *1*

- A) The number of assessment team members involved and the frequency of data collection.
- B) Adequacy to understand the extent of implementation, representation of the organizational unit, and representation of life-cycle phases in use within the organizational unit.
- C) The number of interviews conducted and the length of the interviews.
- D) Corroboration of evidence from multiple sources and the number of assessment reports generated.

Question 2: Which of the following characteristics is applicable when performing an informal TMMi assessment?

Number of correct answers: *1*

- A) A verifiable benchmark rating of the organization against TMMi is produced.
- B) TMMi assessment results are, at least partly, based on the results of a formal CMMI assessment.
- C) One type of non-corroborative evidence is required.
- D) The assessment team consists of at least two experienced TMMi assessors.

Question 3: Which of the following statements is FALSE?

Number of correct answers: *1*

- A) To obtain TMMI Level 4, all TMMi Level 3 and TMMi Level 2 goals must also be achieved.
- B) To understand institutionalization, an assessment team must obtain data from different, representative roles within different parts of the organization.
- C) A process area has sufficient data coverage if all its specific practices have sufficient data coverage, while its generic practices are checked at organizational level rather than at process area level.
- D) The assessment method shall require a defined mechanism for determining that sufficient data has been collected to cover the scope of a formal assessment.

Assessment Method Requirements

Question 4: Which of the following is NOT an input to a TMMi assessment plan?

Number of correct answers: *1*

- A) Purpose of the assessment
- B) Scope
- C) List of interviewees
- D) Assessment method used

Question 5: Which of the following is a valid way of collecting data for a TMMi assessments?

Number of correct answers: *1*

- A) Interviewing people
- B) Evaluation questionnaires
- C) Surveying customers
- D) All the above

Question 6: To which TMMi process components can the ratings Not Achieved, Partly Achieved, Largely Achieved and Fully Achieved be applied by taking into account their percentage achievement ratings?

Number of correct answers: *1*

- A) Specific practices, generic practices, specific goals, generic goals, process areas and maturity levels
- B) Specific practices, generic practices, specific goals, generic goals and process areas only
- C) Specific practices, generic practices, specific goals and generic goals only
- D) Specific practices and generic practices only

Question 7: What is a critical requirement for data collected during TMMi assessments?

Number of correct answers: *1*

- A) Data must only be collected through confidential interviews.
- B) Data must be verifiable as objective evidence.
- C) Staff interviews and documents are required for both formal and informal assessments.
- D) Data consistency is only required within each source.

Question 8: How is the rating for a TMMi maturity level determined in a TMMi assessment?

Number of correct answers: *1*

- A) The rating for a TMMi maturity level is based on the lowest rating of all process areas within scope
- B) A TMMi Maturity level can only be rated if all process areas within scope are rated as "Fully Achieved"
- C) The rating for a TMMi maturity level is determined independently of the ratings for the process areas within scope
- D) A higher TMMi maturity level can be achieved without lower TMMi maturity levels being achieved as well

Question 9: A plan for an assessment shall be formulated before its initiation. Which assessment role is related to the hereafter listed set of responsibilities?

-   **Shall be present throughout planning meetings.**
-   **Participates in process area rating reviews.**
-   **Provides input into feedback sessions and results presentations.**
-   **Submits a detailed report on the results or findings of the assessment.**

Number of correct answers: *1*

A) Assessment team member
B) Senior manager
C) Assessment sponsor
D) Assessment team leader

Question 10: As the assessment team leader, you have successfully conducted an informal assessment with the client. You are now in the process of preparing the assessment report. In the report, several essential items shall be included.

Which of the following items should <u>NOT</u> be included in the report?

Number of correct answers: *1*

A) Date of the assessment
B) Findings highlighting process strengths and weaknesses
C) Overall formal TMMI maturity rating based on the assessment
D) Assessment method details and information

Question 11: All assessment methods being used to perform TMMi assessments shall comply with the latest version of TAMAR. TAMAR itself complies with the International Standard for the Information Technology Process Assessment - Requirements for Process Assessment.

To which ISO standard does TAMAR comply?

Number of correct answers: *1*

A) ISO/IEC 33002
B) ISO/IEC 15504
C) ISO/IEC 29119
D) ISO/IEC 25010

Question 12: Consider the following outputs of an assessment:

-   **Date of the assessment**
-   **A list of the objective evidence gathered during the data collection stage of the assessment**

To which type of TMMi assessment do these outputs relate?

Number of correct answers: *1*

A) Informal TMMi assessments only
B) Formal TMMi assessments only
C) Both informal and formal assessments
D) Neither informal nor formal assessments

Organizational Scope & Exclusion Criteria

Question 13: What does TAMAR specifically state as a main factor influencing the organisational scope for a TMMi assessment?

Number of correct answers: *1*

- A) Number of delivery models implemented
- B) Number of technologies deployed
- C) Type of test tools used
- D) Complexity of the organization

Question 14: Gen X is an innovative medium-sized company that specializes in providing software solutions for small businesses. They have a strong record of successfully delivering reliable and cost-effective projects for diverse clients. They are in the process of establishing an independent test team and want to achieve TMMi level 3 certification.

Non-functional testing does not have a defined process and is not included in the test policy nor in the test strategy. In the planning meeting, the sponsor agreed with the TMMi lead assessor to exclude the Non-Functional Testing process area from the scope of the formal assessment due to insufficient resources for interviewing.

What rating should the TMMi lead assessor assign to the process area Non-Functional Testing?

Number of correct answers: *1*

- A) Not Applicable
- B) Largely Achieved
- C) Not Rated
- D) Fully Achieved

Question 15: When undertaking the planning and preparation stages of a TMMi assessment, a range of different operating conditions under the processes to be assessed must be reflected in the definition of the organizational unit.

Of the four items below, which is <u>NOT</u> a main factor that will influence the organizational scope?

Number of correct answers: *1*

- A) Number of delivery models implemented
- B) Number of organizations or customer domains
- C) Type of TMMi assessment
- D) Number of and different size of projects delivered in a representative period before the assessment

Question 16: How many process areas can be rated as "Not Applicable" in a TMMi level 4 assessment?

Number of correct answers: *1*

- A) Only one process area can be rated as "Not Applicable" per assessment
- B) A maximum of two process areas can be rated as "Not Applicable" per assessment
- C) Three process areas (one per assessed level) can be rated as "Not Applicable"
- D) This should be decided by the assessment team leader during the assessment

Rating Process Areas and Maturity Levels

Question 17: The final scores for the goals for process area 2.2 Test Planning in a TMMi Level 3 formal assessment are listed in the table below:

Specific Goal	Process Area 2.2 Test Planning - Goals	Score
SG1	Perform product risk assessment	P
SG2	Establish a test approach	L
SG3	Establish test estimates	F
SG4	Develop a test plan	F
SG5	Obtain commitment to the test plan	F
Generic Goal		
GG2	Institutionalise a Managed Process	F
GG3	Institutionalise a Defined Process	N

Which of the statements below describes the correct reasoning behind the rating to be applied to process area 2.2 Test Planning?

Number of correct answers: *1*

- A) The process area should be rated "F" (Fully Achieved) because most goals are rated as Fully Achieved.
- B) The process area should be rated "L" (Largely Achieved) because this is a sensible average of the ratings.
- C) The process area should be rated "P" (Partially Achieved) because although the lowest goal rating is "N" (Not Achieved") this score is ignored as it is a TMMi level 3 generic goal and thus does not apply to a TMMi level 2 process area.
- D) The process area should be rated "N" (Not Achieved) as it is the lowest of the goal ratings.

Question 18: The final process area scores for a TMMi level 3 formal assessment are listed in the table below:

Process Area	Process Area Name	Process Area score
2.1	Test Policy and Strategy	NA
2.2	Test Planning	F
2.3	Test Monitoring and Control	F
2.4	Test Design and Execution	F
2.5	Test Environment	NA
3.1	Test Organization	F
3.2	Test Training Program	F
3.3	Test Lifecycle and Integration	F
3.4	Non-Functional Testing	NA
3.5	Peer Reviews	L

Which of the statements below describes the correct reasoning behind the overall TMMi maturity Level and rating achieved?

Number of correct answers: *1*

A) The maturity Level achieved is TMMi level 3 (Fully Achieved) because the majority of process areas are rated as Fully Achieved and the process areas marked as "Not Applicable" do not influence the result of the assessment.

B) The maturity level achieved is TMMi level 3 (Largely Achieved) because Largely Achieved is the lowest of the process area ratings in maturity level 3 and the process areas marked as "Not Applicable" do not influence the result of the assessment

C) The maturity level achieved is TMMi level 2 (Fully Achieved) because no more than two Process Areas may be rated as "Not Applicable" within the scope of the assessment

D) The maturity level achieved is TMMi level 1 because not more than one process Area per maturity level are allowed to the rated as "Not Applicable" to achieve a maturity level.

Question 19: A financial organization is being formally assessed to be certified at TMMi maturity level 3. Three projects are within the scope of the assessment. During the interview with a test manager for one of the projects the assessment team learns that product risks are indeed identified and analyzed before defining the test approach. However, this project does not follow the defined risk assessment process, nor does it use the standard risk template.

Assuming everything else is ok, what is the best explanation of how the test planning process area should be rated?

Number of correct answers: *1*

A) The test planning process area should be rated as "Fully Achieved" as long as they have tailoring guidelines and, based on those, they justify why they use a different risk assessment process and risk template, and specify the process and template being used

B) The test planning process area should be rated "Not Achieved" as the standard process and template are not being used consistently

C) The test planning process area should be rated "Fully Achieved" because they are doing risk assessments, and not using the standard process and template is not that important

D) It depends on the evaluation and judgement of the assessment team

Question 20: As a TMMi lead assessor, you are rating TMMi maturity levels 2 3 for a formal assessment. After recording all the related evidence, you have noted the following findings:

1. During the assessment, you were informed that DevOps team members, who are not part of the organization in scope, are responsible for all the test environments related to specific goal 2 "Perform Test Environment Implementation" and specific goal 3 "Manage and Control Test Environments". Unfortunately, the DevOps team members have not been invited to this formal assessment.

2. The sponsor has agreed with the TMMi lead assessor to exclude the Non-functional Testing process area (PA 3.4) from the scope of the formal assessment due to insufficient resources.

3. During the testing, the testers are consistently working overtime due to a heavy workload, e.g., conducting full regression test suites at the end of each sprint and addressing the delayed bug fixes from the developers. As a result, they do not have sufficient opportunity to review issues or manage corrective action with high-level management.

Based on these observations and considering the provided process area ratings as indicated in the table below, what rating for TMMi maturity level 2 and TMMi maturity level 3 is the result of this formal assessment?

TMMi Level	TMMi Process Area	Process Area Rating
Level 2	PA 2.1 Test Policy and Strategy	Fully Achieved
	PA 2.2 Test Planning	Fully Achieved
	PA 2.3 Test Monitoring and Control	Largely Achieved
	PA 2.4 Test Design and Execution	Fully Achieved
	PA 2.5 Test Environment	Not Applicable
Level 3	PA 3.1 Test Organization	Fully Achieved
	PA 3.2. Test Training Program	Fully Achieved
	PA 3.3 Test Lifecycle and Integration	Fully Achieved
	PA 3.4 Non-Functional Testing	Not Rated
	PA 3.5 Peer Reviews	Fully Achieved

Number of correct answers: *1*

A) TMMi Level 2 is Largely Achieved; TMMi Level 3 is Largely Achieved

B) TMMi Level 2 is Fully Achieved; TMMi Level 3 is Fully Achieved

C) TMMi Level 2 is Largely Achieved; TMMi Level 3 is Not Achieved

D) TMMi Level 2 is Not Applicable; TMMi Level 3 is Not Achieved

Answers and Justifications

Assessment Types Examined

Question 1: *B*

This question pertains to the criteria for determining sufficient data coverage in formal TMMi assessments. According to the TAMAR, specific or generic practices have sufficient data coverage when:

"A specific or generic practice has sufficient data coverage if corroborated objective evidence exists for the practice and is:

- adequate to understand the extent of implementation of the practice
- representative of the organizational unit
- representative of the life-cycle phases in use within the organizational unit"

Therefore, the correct answer is B, as it aligns with the criteria specified in the TAMAR for assessing data coverage in formal TMMi assessments. (TAMAR requirement 2.2.3.7)

Question 2: *C*

Option A) With informal TMMi assessments, no maturity rating against TMMi is produced. Therefore the statement is false, it is not a characteristic of an informal TMMi assessment.

Option B) There is no such requirement in TAMAR for any type of TMMi assessment.

Option C) Correct, one type of non-corroborative evidence, e.g. staff interviews, documents, questionnaires, customer surveys, etc., is required. (TAMAR requirement 2.1.1.3.2)

Option D) With informal TMMi assessments only one accredited assessor is required.

Question 3: *C*

Option A) This statement is true, see TAMAR requirement 2.2.2.2.

Option B) This statement is true, see TAMAR requirement 2.2.3.6.

Option C) This statement is false, both specific and generic practices are checked for each process area. (TAMAR requirement 2.2.3.3.7.2)

Option D) This statement is true, see TAMAR requirement 2.2.3.7.

Assessment Method Requirements

Question 4: *C*

TAMAR lists five main inputs into the assessment plan: the purpose of the assessment, scope, constraints, method to be used and assessor competence criteria. (TAMAR requirement 3.2.2.1)

Question 5: *D*

There are various ways of collecting data for TMMi assessments. These include:
(1) through the confidential submission of documents that concern a particular process
(2) through confidentially interviewing people who define, utilize or are otherwise involved with a particular process

(3) through the distribution and confidential collection of evaluation questionnaires, which are issued to people who are involved with a particular process

(4) through confidentially surveying the customers of a particular organization. (TAMAR requirement 3.3.1.2)

Question 6: *D*

TAMAR specifies that the ratings Not Achieved, Partly Achieved, Largely Achieved and Fully Achieved apply to the four levels at which ratings can be applied, namely: practices (specific and generic), goals (specific and generic), process areas and maturity levels. However, the associated percentage achievement ratings apply only to practices (specific and generic). (TAMAR requirement 3.4.2.1)

Question 7: *B*

Option A) This statement is one of the ways of collecting data, not specifically related to data validation. Documents can also serve as valuable sources of information for assessing a particular process.

Option B) This statement aligns with the requirement mentioned in the data validation section of TAMAR. It emphasizes the need for data to be verifiable and treated as objective evidence. (TAMAR requirement 3.3.2.1)

Option C) Both staff interviews and documents are required only for formal assessments,.

Option D) Collected data must be examined to check that it is consistent with each of the other sources of data.

Question 8: *A*

Option A) The rating for a TMMi maturity Level is based on the lowest rating of all supporting process areas. This statement is correct - the rating for each maturity level is equivalent to the lowest rating of the process areas that support it. (TAMAR requirement 3.4.3.5)

Option B) TMMi maturity level can only be rated if all process areas within them are rated as "Fully Achieved". This statement is incorrect. The rating for maturity levels is determined based on the lowest rating among supporting Process Areas, not necessarily requiring all process areas to be rated as "Fully Achieved".

Option C) The ratings for TMMi maturity levels are determined independently of the ratings for the supporting process areas. This statement is incorrect. The ratings for TMMi maturity levels are directly corresponding to the ratings of the supporting process areas, as mentioned in TAMAR requirement 3.4.3.5.

Option D) Higher maturity level can be achieved without lower levels also being achieved. This statement is incorrect. As mentioned in TAMAR 3.4.3.5, achieving a higher maturity level is not possible without also achieving lower levels.

Question 9: *D*

Option A) is incorrect. An Assessment team member does not need to submit a detailed report on the results or findings of the assessment. That is the responsibility of the assessment team leader.

Option B) is incorrect. The three main roles are: assessment sponsor, assessment team leader and assessment team member. The senior manager is not an assessment role based on TAMAR.

Option C) is incorrect. The assessment sponsor is responsible for receiving the assessment results on behalf of the organization being assessed.

Option D) is correct. The assessment team leader shall submit a detailed report on the results or findings of the assessment. All other responsibilities listed are those of the assessment team leader. (TAMAR requirement 3.2.6)

Question 10: *C*

Option A) is incorrect. The date of the assessment must be included in the report.

Option B) is incorrect. Findings highlighting process strengths and weaknesses must be included in the report.

Option C) is correct. An informal assessment cannot provide any formal rating based on the assessment. (TAMAR requirement 3.5.2)

Option D) is incorrect. The assessment method details information must be included in the report.

Question 11 : *A*

Option A) is correct. All assessment methods to be used with the TMMi reference model for the purpose of performing assessments shall comply with the latest published version of TAMAR, which itself complies with the international standard ISO/IEC 33002 – Requirements for Process Assessments. (TAMAR chapter 5)

Option B) is incorrect. ISO/IEC 15504 is a withdrawn standard - Requirements for Process Assessments and as such the predecessor of ISO/IEC 33002

Option C) is incorrect. ISO/IEC 29119 is the international standard for software testing

Option D) is incorrect. ISO/IEC 25010 is the international standard for a quality model.

Question 12: *C*

Option C) is correct. According to TAMAR requirements 3.5.2.1 and 3.5.2.2 and 3.5.2.4:
- 3.5.2.1 The Assessment Output Report must contain certain items.
- 3.5.2.2 Firstly, the date of the Assessment must be included in the Report.
- 3.5.2.4 Thirdly, a list of the objective evidence gathered during the Data Collection stage of the Assessment must be included.

Organizational Scope & Exclusion Criteria

Question 13 : *A*

Option A) is correct. According to TAMAR requirement Annex 1 1.3   The main factors influencing the organisational scope are: 1) number of delivery models implemented 2) number of different size of projects delivered in representative period before the assessment and 3) number and size of teams.

Question 14 : *C*

Option A) is incorrect. According to TAMAR requirement 3.4.2.6, a process area can be rated as "Not Applicable" only if the Sponsor and/or Lead Assessor exclude the process area from the scope of the assessment, e.g. when the process is outsourced and thus not applicable in the context of the organization and organization unit being assessed.

Option B) is incorrect. – For the reason explained in Option C

Option C) is correct. According to TAMAR 3.4.2.7, "Not Rated" is to be used if the process component cannot be rated due to insufficient or inconsistent evidence or falls outside the scope of the assessment. Therefore, the overall rating for Non-Functional Testing is "Not Rated".

Option D) is incorrect for the reason explained in Option C.

Question 15 : *C*

According to the TAMAR detailed guidelines (Annex 1 1.3) the following factors (from the answers provided) influence the organisational scope:

- Number of delivery models implemented.
- Number of organizations or customer domains
- Number of and different size of projects or teams delivered in a representative period before the assessment.

Question 16 : *B*

Overall, no more than two process areas may be rated as "Not Applicable" within the scope of the assessment (except where the scope of the assessment is restricted to TMMi maturity Level 2 where only one process area may be rated as "Not Applicable"). (TAMAR requirement Annex 1 1.4)

Rating Process Areas and Maturity Levels

Question 17: *D*

TAMAR (Annex 2 2.1) states that process area ratings are equivalent to the lowest rating of the corresponding specific and generic goals and that the process area rating is "only as strong as the weakest link", i.e. the process area will be rated at the lowest rating of the goals. Note that option C is not correct as this is a level 3 assessment, therefore generic goal 3 applies to all TMMi level 2 process areas.

Question 18: *D*

Option D is correct. The TMMi level is maturity level 1 because more than one process area in maturity level 2 has been marked as "Not Applicable" meaning maturity level 2 must be rated as Not Achieved. (TAMAR requirement Annex 2 2.2)

Option A) is incorrect because, firstly, no more than two process areas may be rated as "Not Applicable" and secondly, process area 3.5 is rated as Largely Achieved

Option B) is incorrect simply because of the rule that no more than two process areas may be rated as "Not Applicable" within the scope of the assessment.

Option C) is incorrect because no more than one process area within a maturity Level is allowed to be "Not Applicable".

Question 19: *A*

The tailoring guidelines (part of the process area Test lifecycle and Integration at TMMi level 3) define the changes allowed to the testing process depending on projects or other aspects.

Question 20: *C*

Option A) is incorrect. Maturity level ratings are equivalent to the lowest rating of the supporting process areas. The lowest rating of the process areas at TMMi level 2 is "Largely Achieved" (for PA2.3 Test Monitoring

and Control). However, since one process area at TMMi level 3 is not rated, the maturity level should be rated as "Not Achieved".

Option B) is incorrect. Maturity Level ratings are equivalent to the lowest rating of the supporting process areas. The lowest rating of the process areas at TMMi level 2 is "Largely Achieved" (for PA2.3) and not "Fully Achieved".

Option C) is correct. Maturity Level ratings are equivalent to the lowest rating of the supporting process areas. The lowest rating of the process areas is "Largely Achieved" (for PA 2.3 Test Monitoring and Control), which impacts the overall rating. All level 3 process areas (except Non-functional testing) have been rated as "Fully Achieved", but the overall rating for the maturity level 3 is still "Not Rated" since Non-Functional Testing has been rated.

Option D) is incorrect. Process area A2.5 test environment is "Not Applicable" in the organization's context so does not influence the result of the assessment.