

Sample Exam

# TMap NEXT® Test Manager

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# Content

Introduction	4
Sample exam	5
Appendix A807	20
Answer key	24
Evaluation	48

# Introduction

This is the sample exam TMap NEXT® Test Manager.

This sample exam consists of 40 multiple-choice questions. Each multiple-choice question has a number of possible answers, of which only one is the correct answer.

The maximum number of points that can be obtained for this exam is 40. Each correct answer is worth one point. If you obtain 26 points or more you will pass.

The time allowed for this exam is 90 minutes.

No rights may be derived from this information.

Good luck!

# Sample exam

1 of 30

See appendix [15038](#)

Why is it a good decision to create a generic test agreement document (GTA) in addition to the master test plan (MTO)?

- A. More parties are involved in the project.
- B. A GTA is a good tool for future releases.
- C. A GTA is used to supplement the MTP with details of the planned tests.

2 of 40

See appendix [15038](#)

The product risk analysis is used to calculate the chance of failure.

In which package is the chance of failure greater?

- A. financial package
- B. logistical package
- C. equal for both packages
- D. cannot be determined at this time

3 of 40

See appendix [15038](#)

A number of rough user requirements have been described for the website. The test manager should now execute the product risk analysis and compile the test strategy for the website.

What is the most efficient way to execute the product risk analysis (PRA) and compile the test strategy?

- A. in separate sessions
- B. in one session
- C. with interviews
- D. with reviews

4 of 40

See appendix [15038](#)

The test partner is proposing the business driven test management approach. The client agrees with this.

In addition to risk, which aspects must the test partner focus on when using this approach?

- A. number of testers, quality and hours to be worked
- B. lead time, costs and requirements
- C. costs, quality and result
- D. costs, result and time

5 of 40

See appendix [15038](#)

Defect management is very important, because the project involves both internal and external parties. The following agreement has been made about the settlement of known errors: "Known errors must always be resolved immediately".

Why is this **not** a good agreement?

- A. 'Known errors' have a low priority by definition.
- B. 'Known errors' that are the result of an error in the administrative organizational procedures do not have to be resolved immediately.
- C. 'Known errors' by definition are not resolved immediately or sometimes not at all.

6 of 40

See appendix [15038](#)

In the Pet Supply Website case, the master test plan strategy table includes the following:

Characteristic/ object part	RC	ST	AT
User-friendliness			
- screens	A	●	●●●

The integrator proposes developing the online screens together with the client (rapid application development and prototyping).

If the client agrees to this proposal, how should the master test plan strategy table be changed with respect to the user-friendliness screens?

- A. ST ●            AT ●●○
- B. ST ●            AT ●●●
- C. ST ●●●        AT ●○○
- D. ST ●●●        AT ●●●

7 of 40

See appendix [15038](#)

During the creation of the System Test Plan, the test manager has analyzed the product risks, determined the test strategy, estimated the effort and determined the planning. Prior to allocating test techniques to the test units, the test manager decides to split the combination functionality/order into two separate test units.

Which of the following is the likely reason for doing this?

- A. The combination functionality/order is a high risk combination and so requires testing in smaller test units.
- B. Object part order is large and splitting it into separate test units makes it more manageable.
- C. Splitting the object part order into two test units facilitates the thoroughness level prescribed in the test strategy.

8 of 40

See appendix [15038](#)

The integrator is responsible for the system test (ST), while the acceptance test (AT) is the responsibility of the test partner.

Which of the following test organizations is the best choice?

- A. acceptance and system test with the same testers
- B. acceptance and system test with different testers
- C. combined acceptance and system test
- D. chain test

9 of 40

See appendix [15038](#)

Which of the characteristic/object part combinations should in practice start first in the planning schedule for the system test?

- A. security
- B. suitability
- C. functionality/pay
- D. performance/delivery

10 of 40

See appendix [15038](#)

Suppose that the result for the estimate of both the system test (ST) and the acceptance test (AT) results in approximately 1280 hours per test level (not including the test manager time). In addition, experience figures show that in both test types approximately 25% is spent on the Execution phase. Both the integrator and the test party think that a team with a test manager and four testers is the ideal number of staff during the Execution phase. For the time being, they will only plan on working days from 8:30 a.m. to 5 p.m. (8 hours per day, Monday through Friday, no holidays).

In this situation, what are the start dates for the Execution phases of the ST and AT based on the basis of the 'critical path' concept?

- A. ST starts on June 26<sup>th</sup> and AT starts on July 10<sup>th</sup>.
- B. ST starts on August 7<sup>th</sup> and AT starts on August 21<sup>st</sup>.
- C. ST starts on August 11<sup>th</sup> and AT starts on August 23<sup>rd</sup>.
- D. ST starts on August 17<sup>th</sup> and AT starts on August 25<sup>th</sup>.

11 of 40

See appendix [15038](#)

The test partner notices that at the end of the website acceptance testing period there are no more defects and the cumulative number of defects has almost stopped increasing.

What will the test partner propose to the client in this situation?

- A. calculate the damage that has occurred
- B. deploy less testing capacity
- C. stop acceptance testing
- D. extend the testing period

12 of 40

See appendix [15038](#)

The end date of September 1<sup>st</sup> for the test execution is enormously important for the client. However, the way the test is progressing is disappointing. It is decided to start testing less of the system with the same team capacity so that the end date can still be met.

What is the consequence of this decision?

- A. higher risk
- B. higher costs
- C. more defects
- D. fewer defects

13 of 40

See appendix [15038](#)

Needless to say, the online payment option should be tested extensively. The client expects the test for this part to include traceability.

What is demonstrated with traceability?

- A. defects can be traced
- B. the project evaluation is accurate
- C. that testing is being carried out
- D. what is being tested

14 of 40

See appendix [15038](#)

To determine the effectiveness of defect detection, the 'defect detection percentage' is used as a metric. During the system test, 20 defects are detected and during the acceptance test 60 defects are detected.

What is the 'defect detection percentage' of the system test after the acceptance test has been carried out?

- A. 25%
- B. 33%
- C. 50%
- D. 75%

15 of 40

See appendix [15038](#)

Why is Test-Driven Development (TDD) on unit level testing a good idea?

- A. The unit tests are performed independently of this method.
- B. It gives an early insight into the quality of the test object.
- C. It provides an earlier result than code review.
- D. It provides an earlier result than refactoring.

16 of 40

See appendix [15039](#)

Estimates of product risks have never been used in the libraries.

Why is the absolute classification method **not** a good choice for the product risk analysis?

- A. The detailed risk factors are unknown.
- B. The damage in case of failure and the chance of failure are not known.
- C. There is little experience in estimating product risks.

17 of 40

See appendix [15039](#)

Why can the result of a completed product risk analysis still change?

- A. Certain risks were estimated incorrectly.
- B. The estimate was found to be incorrect
- C. The planning schedule was found to be incorrect

18 of 40

See appendix [15039](#)

The test procedure for 'PINS' is being estimated while the master test plan is being created.

Which units of account can be used?

(LDC=logical data collection, KLOC=kilo lines of code, Kilo = 1000)

- A. the number of LDC's, the number of screens and the KLOC
- B. the number of LDC's and the KLOC
- C. the number of screens and the KLOC
- D. the number of screens and the number of LDC's

19 of 40

See appendix [15039](#)

The interfaces are being developed iteratively.

Which estimation approach should be used when creating the master test plan if there are no experience figures available?

- A. extrapolation
- B. proportionate estimation
- C. test point analysis

20 of 40

See appendix [15039](#)

The test manager executes all activities from the start of the project. The aim is to start test process management as early as possible.

When does the control phase of the total test process start?

- A. before starting to create the master test plan (MTP)
- B. while creating the master test plan
- C. after the master test plan is consolidated

21 of 40

See appendix [15039](#)

For 'BRU', it is decided to use the known parameter settings of Library 1.

Why is an acceptance test for 'BRU' necessary in this situation?

- A. The accepting party should verify the effectivity of the system.
- B. The system test executed by the supplier is not objective enough.
- C. The supplier must prove that the system satisfies the library's requirements.

22 of 40

See appendix [15039](#)

The classification into a risk class and the size estimate are known.

Which estimation technique(s) is (are) recommended to estimate for the bookkeeping acceptance test?

- A. estimation based on the test object size
- B. estimation based on the ratio known from the literature
- C. proportionate estimation and estimation based on the test object size

23 of 40

See appendix [15039](#)

The project manager for the project is proposing that maintenance of the test environments is made the responsibility of the administrators of the production environment.

Why is this combination of responsibilities **not** a good idea?

- A. The administrators of the production environment also maintain the production acceptance test environment.
- B. The administrators of the production environment do not have enough knowledge of the test environments.
- C. If there are production disruptions, it can mean that the maintenance of the test environments is not performed.

24 of 40

See appendix [15039](#)

What is the reason for the deployment of test tools in the Planning phase of this project?

- A. The deployment of tools can serve to leverage the implementation of a structured test approach.
- B. The deployment of tools speeds up the Execution phase.
- C. The deployment of tools creates a stable 'system landscape'.
- D. Without tools, it is not possible to set up a good test approach.

25 of 40

See appendix [15039](#)

The supplier wants to answer any questions and uncertainties among the accepting parties about the new 'BRU' parameter settings.

What is the **most** common evaluation technique for this?

- A. inspection
- B. review
- C. walkthrough

26 of 40

See appendix [15039](#)

The first design of the interfaces is recorded in a functional design. A number of problems still have to be solved.

What is the **best** time for the designer to request a review?

- A. if the situation is not clear for the testers
- B. once the realization has started
- C. when a product is ready
- D. when possible courses for a solution need to be found

27 of 40

See appendix [15039](#)

Why is a pre-test defined for the new bookkeeping package?

- A. to assess whether the central starting point can be built properly in the test environment
- B. to assess whether the supplier is keeping to the agreed time schedule
- C. to assess whether the package is working together properly with the interfaces that were built in-house
- D. to assess whether the quality of the package is sufficient for it to be tested

28 of 40

See appendix [15039](#)

The test manager wants to have a component-based version management system set up for all 'BRU', 'PINS' and other acceptance test environments.

Why is this the right decision?

- A. An acceptance test environment is a stable environment.
- B. It must be possible to test a test object under the same conditions each time.
- C. It is the only way to indicate what still has to be transferred to production.

29 of 40

See appendix [15039](#)

It is taking longer than originally planned to execute the project. A tool purchased not long ago for automated testing is being deployed for the first time. The tool will eventually yield faster lead times. Unfortunately, this is just delaying the project even more. It is decided to discontinue the use of test automation tools for all libraries.

How could this decision to stop using the tool have been avoided?

- A. make sure everybody knows how much money was spent on the tool
- B. make sure there is user commitment
- C. make sure there is management's commitment

30 of 40

See appendix [15039](#)

An application integrator is working at the libraries. The test manager wants to appoint the application integrator as the quality inspector as well.

What is the advantage of combining these roles?

- A. The application integrator can ensure the agreements made are fulfilled.
- B. The application integrator carries out the system test and wants to be assured of the quality of the unit test.
- C. In this way, the application integrator can perform good defect management.

31 of 40

Various estimating techniques are used to compile the master test plan.

Why is the estimate for the unit test UT and unit integration test often missing?

- A. The UT and UIT are carried out by developers and not by testers.
- B. The UT and UIT are not part of the master test plan.
- C. The estimate for the UT and UIT is a fixed percentage of the entire test estimate.
- D. The estimate for the UT and UIT is often an integrated component in estimating the realization project.

**32 of 40**

While developing a new software release, in the Preparation phase it is found that the test basis is incomplete.

What is a good alternative for the test basis in this situation?

- A. 18 Attacks, by Whittaker and Jorgenson
- B. HICCUPP
- C. organize an information session

**33 of 40**

Why is a code review carried out during the unit testing period?

- A. to shorten the lead time of the unit test
- B. to increase the quality of the developed products
- C. so that a dynamic test can be carried out.
- D. to determine whether test-driven development is possible

**34 of 40**

A developer is requested, in his/her role as a tester, to provide information about the maintainability of the system.

Which test tool type would be the **best** choice to address this request?

- A. Debugger
- B. Unit test tool
- C. Code-analysis tool
- D. Defect management tool

**35 of 40**

Which defects should be recorded during development testing?

- A. all defects detected by the developer
- B. all defects from all test types
- C. all defects to be examined by somebody other than the developer
- D. no defects need to be recorded during development testing

**36 of 40**

In a Test Factory, testware management still has to be set up.

What is an important condition for this?

- A. A test environment must be set up.
- B. Software must be delivered in releases.
- C. The service level must be recorded.

**37 of 40**

An organization wants to create a permanent testing organization. The management wants control over and responsibility for the results, however, to remain with the project rather than the test organization.

In this situation, which type of test organization is recommended?

- A. Project-based testing
- B. Test Factory (TF)
- C. Test expertise center (TEC)

**38 of 40**

A large software package has gone into production. Ten different types of environments were created and used in the preceding test procedure. Two environments that closely resembled production environments (simulated production environments) were preserved.

What is the aim of preserving simulated production environments?

- A. The test environments in the DTAP process must be preserved.
- B. The test environments will remain as up-to-date as possible.
- C. It must be possible to perform the system test and acceptance test parallel to each other.
- D. It must be possible to test both a production fix and a new version.

**39 of 40**

An organization wants to know whether it would be useful to purchase a tool for automated test execution.

What is the best way to investigate this?

- A. by means of a metaplan session
- B. by means of a project
- C. by means of a quick scan

**40 of 40**

What is the ratio of required experience between execution, advice and leadership of a test coordinator?

- A. The test coordinator is a specialist in the execution role and is experienced in the advisory role.
- B. The test coordinator is a specialist in the execution role and is experienced in the leadership role.
- C. The test coordinator is a specialist in both the execution and advisory roles.
- D. The test coordinator is a specialist in both the execution and leadership roles.

# Appendix A807

## Appendix 15038

### Case Study 'Pet Supply Website'.

The Case Study 'Pet Supply Website' and the 'Master test plan strategy table' are provided below.

A Pet Supply shop wants to expand its existing business by starting a Pet Supply Website.

The owner of the Pet Supply shop is the client of both the integrator and an independent test partner.

The 'front' of the application is a website. The 'backend' consists of a framework of connecting software and packages for the financial and logistical activities.

The required functionality of the website was written in rough user requirements, including among other things:

- the display of a catalogue with pet supplies
- the capacity to order items and fill a shopping cart
- a payment option
- the option of having the order delivered or of picking it up.
- the ability to follow the status of the order
- a registration option for the customer's personal data
- **not** the purchase of pet supplies for the Pet Supply shop itself (this is embedded in the Pet Supply shop's purchasing procedure)

An integrator is responsible for realising the entire system, including both the front and backend of the website. The parameters within the financial package must be set up appropriately. For the logistical activities, the package must first be adapted before the parameters can be defined.

The client has scheduled a fixed date for the product launch: Friday, September 8<sup>th</sup>. The end date of the acceptance test (specifically: the Execution phase) has been scheduled for September 1<sup>st</sup> (at the end of the day). The Execution phase of the acceptance test may only be started when the Execution phase of the system test has ended with positive recommendations.

The integrator is responsible for executing the system test, while the test partner is responsible for executing the acceptance test. The client has told both parties that the test throughput time may be a maximum of eight weeks for each test level.

**Master test plan strategy table:**

In which  
 RC = risk class,  
 ST = system test,  
 AT = acceptance test

Characteristic/object part	RC	ST	AT
Functionality			
- catalogue	B	●	●●
- order	A	●●	●●●●
- pay	A	●●	●●●●
- registration	B	●	●
User-friendliness			
- screens	A	●	●●●●
Performance			
- online	A	●●●●	●●
- delivery	C	●	●
Security	B	●	●●
Suitability	C		●

**Calendar:**

Day	June	July	August	September
Thursday	1			
Friday	2			1
Saturday	3	1		2
Sunday	4	2		3
Monday	5	3		4
Tuesday	6	4	1	5
Wednesday	7	5	2	6
Thursday	8	6	3	7
Friday	9	7	4	8
Saturday	10	8	5	9
Sunday	11	9	6	10
Monday	12	10	7	11
Tuesday	13	11	8	12
Wednesday	14	12	9	13
Thursday	15	13	10	14
Friday	16	14	11	15
Saturday	17	15	12	16
Sunday	18	16	13	17
Monday	19	17	14	18
Tuesday	20	18	15	19
Wednesday	21	19	16	20
Thursday	22	20	17	21
Friday	23	21	18	22
Saturday	24	22	19	23
Sunday	25	23	20	24
Monday	26	24	21	25
Tuesday	27	25	22	26
Wednesday	28	26	23	27
Thursday	29	27	24	28
Friday	30	28	25	29
Saturday		29	26	30
Sunday		30	27	
Monday		31	28	
Tuesday			29	
Wednesday			30	
Thursday			31	

## Appendix 15039

### Case Study 'Library'

Three libraries are planning to work together. All three libraries have their own information systems for bookkeeping and personnel administration. Libraries 1 and 2 have the same package for book registration and lending, but they each have their own parameter settings. This package is called BRU. Library 3 is still working with a manual system for book registration and lending.

It has been decided to start using 'BRU' for book registration and lending, but the libraries will now have to start working with clear parameter settings. To distinguish the two versions of 'BRU' that are in use, they will be called 'BRU01' and 'BRU02'.

For the personnel administration, it was decided to deploy the system being used by one of the libraries. This package is called PINS. For the bookkeeping, it was decided to purchase a new package because none of the current systems meet the current needs.

The interfacing between all packages will be redeveloped.

A project has been set up to replace, expand and/or migrate all the current systems within one year. The test manager is a member of this project team and is expected to execute all test management activities from the start of the project.

The test manager has been given an extra objective: the introduction of a structured testing method.

# Answer key

1 of 30

See appendix [15038](#)

Why is it a good decision to create a generic test agreement document (GTA) in addition to the master test plan (MTO)?

- A. More parties are involved in the project.
- B. A GTA is a good tool for future releases.
- C. A GTA is used to supplement the MTP with details of the planned tests.

A. Incorrect. The number of parties is not a criterion for creating a GTA.  
B. Correct. A GTA is useful for future test procedures since its purpose is to define overall processes and procedures to be used in all releases. (Section 5.4).  
C. Incorrect. The details of the GTA are worked out in an MTP for each release.

2 of 40

See appendix [15038](#)

The product risk analysis is used to calculate the chance of failure.

In which package is the chance of failure greater?

- A. financial package
- B. logistical package
- C. equal for both packages
- D. cannot be determined at this time

A. Incorrect. In the financial package, only the parameters are defined. No additional adaptations are required as is the case in the logistical package.  
B. Correct. Besides defining parameters, the logistical package must first be adapted here (Chapter 9).  
C. Incorrect. The chance of failure with the logistical package is greater than with the financial package due to the additional adaptation necessary in the logistical package.  
D. Incorrect. There is sufficient information available to determine the chance of failure.

3 of 40

See appendix [15038](#)

A number of rough user requirements have been described for the website. The test manager should now execute the product risk analysis and compile the test strategy for the website.

What is the most efficient way to execute the product risk analysis (PRA) and compile the test strategy?

- A. in separate sessions
- B. in one session
- C. with interviews
- D. with reviews

A. Incorrect. It is less efficient to execute the PRA and compile the test strategy separately than it is to combine them.

B. Correct. It is efficient to combine execution of the PRA and compilation of the test strategy (Sections 9.4.1 and 5.2.4)

C. Incorrect. One session is preferred over interviews because a single session achieves a joint commitment from the participants and is a more efficient use of time.

D. Incorrect. Reviewing is not a suitable technique for executing a PRA. But it probably is efficient for evaluating the result.

4 of 40

See appendix [15038](#)

The test partner is proposing the business driven test management approach. The client agrees with this.

In addition to risk, which aspects must the test partner focus on when using this approach?

- A. number of testers, quality and hours to be worked
- B. lead time, costs and requirements
- C. costs, quality and result
- D. costs, result and time

A. Incorrect. The four aspects of the business driven test management approach are risk, result, time and costs.  
B. Incorrect. The four aspects of the business driven test management approach are risk, result, time and costs.  
C. Incorrect. The four aspects of the business driven test management approach are risk, result, time and costs.  
D. Correct. The four aspects of the business driven test management approach are risk, result, time and costs. (Section 3.1; see also page 207).

5 of 40

See appendix [15038](#)

Defect management is very important, because the project involves both internal and external parties. The following agreement has been made about the settlement of known errors: "Known errors must always be resolved immediately".

Why is this **not** a good agreement?

- A. 'Known errors' have a low priority by definition.
- B. 'Known errors' that are the result of an error in the administrative organizational procedures do not have to be resolved immediately.
- C. 'Known errors' by definition are not resolved immediately or sometimes not at all.

A. Incorrect. The priority of a 'known error' has no impact effect on whether it is resolved immediately or not.  
B. Incorrect. 'Known errors' are not errors in AO procedures. 'Known error' procedures do not exist.  
C. Correct. The agreement is not a good one because the main characteristic of a 'known error' is that it is not resolved immediately or may not even be resolved at all (Sections 5.2.10 and 12.4).

6 of 40

See appendix [15038](#)

In the Pet Supply Website case, the master test plan strategy table includes the following:

Characteristic/ object part	RC	ST	AT
User-friendliness			
- screens	A	●	●●●

The integrator proposes developing the online screens together with the client (rapid application development and prototyping).

If the client agrees to this proposal, how should the master test plan strategy table be changed with respect to the user-friendliness screens?

- A. ST ●            AT ●●○
- B. ST ●            AT ●●●
- C. ST ●●●        AT ●○○
- D. ST ●●●        AT ●●●

A. Incorrect. Because there is early commitment to the ST, it is not necessary to place more emphasis on the AT than on the ST.

B. Incorrect. This is the original distribution. It is now no longer correct, because due to the involvement of the client in developing the screens it is now no longer necessary to test more thoroughly in the AT than in the ST.

C. Correct. Due to the involvement of the client in screen development the focus of the test will be on the ST. Because of this, it will be all right to reduce test thoroughness in the AT (Sections 3.4 and 5.3).

D. Incorrect. Due to the involvement of the client in screen development, the focus of the test will be on the ST. It is therefore not necessary to test thorough in the AT.

See appendix [15038](#)

During the creation of the System Test Plan, the test manager has analyzed the product risks, determined the test strategy, estimated the effort and determined the planning. Prior to allocating test techniques to the test units, the test manager decides to split the combination functionality/order into two separate test units.

Which of the following is the likely reason for doing this?

- A. The combination functionality/order is a high risk combination and so requires testing in smaller test units.
- B. Object part order is large and splitting it into separate test units makes it more manageable.
- C. Splitting the object part order into two test units facilitates the thoroughness level prescribed in the test strategy.

A. Incorrect. Although the combination functionality/order is a high risk, splitting it into smaller test units is not recommended. The test manager should coordinate with the developer, so that a delivery unit corresponds with one or more test units so that no half-test units are delivered. Although size and test type/technique may be factors in determining units, risk by itself is not a determining factor.

B. Correct. Valid reasons for splitting a characteristic/object part into more than one test unit include the following: 1) The size of the object part is too big to be able to manage the testing of it effectively; or 2) A particular piece of the object part requires a separate test technique (Section 6.2.8).

C. Incorrect. Valid reasons for splitting a characteristic/object part into more than one test unit include the following: 1) The size of the object part is too big to be able to manage the testing of it effectively; or 2) A particular piece of the object part requires a separate test technique.

8 of 40

See appendix [15038](#)

The integrator is responsible for the system test (ST), while the acceptance test (AT) is the responsibility of the test partner.

Which of the following test organizations is the best choice?

- A. acceptance and system test with the same testers
- B. acceptance and system test with different testers
- C. combined acceptance and system test
- D. chain test

A. Incorrect. There are different interests involved so it is not a good idea to have the test levels performed by the same people.

B. Correct. There are different interests involved so it is a good idea to have the test levels performed by different people/teams (Section 6.2.10).

C. Incorrect. There are different interests involved so it is not a good idea to combine the test levels.

D. Incorrect. A chain test could be an additional test in both the ST and AT, or could even be defined as a separate test level, but this is not directly related to how to organize an AT/ST.

9 of 40

See appendix [15038](#)

Which of the characteristic/object part combinations should in practice start first in the planning schedule for the system test?

- A. security
- B. suitability
- C. functionality/pay
- D. performance/delivery

A. Incorrect. Security has risk class B. There are higher risk classes.

B. Incorrect. Suitability is not tested in the system test.

C. Correct. In a good planning schedule, the characteristics/sub-object parts with high risk are tested as early as possible. Functionality/pay has risk class A (Section 6.2.7).

D. Incorrect. Performance/delivery has risk class C. There are higher risk classes.

See appendix [15038](#)

Suppose that the result for the estimate of both the system test (ST) and the acceptance test (AT) results in approximately 1280 hours per test level (not including the test manager time). In addition, experience figures show that in both test types approximately 25% is spent on the Execution phase. Both the integrator and the test party think that a team with a test manager and four testers is the ideal number of staff during the Execution phase. For the time being, they will only plan on working days from 8:30 a.m. to 5 p.m. (8 hours per day, Monday through Friday, no holidays).

In this situation, what are the start dates for the Execution phases of the ST and AT based on the basis of the 'critical path' concept?

- A. ST starts on June 26<sup>th</sup> and AT starts on July 10<sup>th</sup>.
- B. ST starts on August 7<sup>th</sup> and AT starts on August 21<sup>st</sup>.
- C. ST starts on August 11<sup>th</sup> and AT starts on August 23<sup>rd</sup>.
- D. ST starts on August 17<sup>th</sup> and AT starts on August 25<sup>th</sup>.

A. Incorrect. These are the start dates of the test types, not of the Execution phases.  
B. Correct. With the critical path concept, only the Execution phase is on the critical path. 1280 hours equals 160 person days. 25% of 160 = 40 person days. Team capacity consists of 4 people which equals 4 person days per day. As a result of this, the Execution phases of both the ST and the AT take  $40/4 = 10$  (working) days. Calculating back from September 1<sup>st</sup>, this means that the Execution of the AT starts on August 21<sup>st</sup> and execution of the ST on August 7<sup>th</sup> (Section 5.2.5 and Chapter 11).  
C. Incorrect. This calculation is based on the four testers and the test manager. However, the test manager should not be included in the calculation.  
D. Incorrect. With this calculation, 40 person days have indeed been calculated, but the weekends have also been included and this is not the intention for the time being.

11 of 40

See appendix [15038](#)

The test partner notices that at the end of the website acceptance testing period there are no more defects and the cumulative number of defects has almost stopped increasing.

What will the test partner propose to the client in this situation?

- A. calculate the damage that has occurred
- B. deploy less testing capacity
- C. stop acceptance testing
- D. extend the testing period

A. Incorrect. Calculating the prevention of damage is probably useful for demonstrating the benefits of testing, but at present it is of no great benefit to the client to base a project decision on it.

B. Incorrect. When no more defects are found, it can be a sign to stop testing and therefore not to continue with reduced testing capacity, which would just cost (unnecessary) extra time and money.

C. Correct. When no more defects are found, it can be a sign to stop testing (Sections 3.4 and 6.3).

D. Incorrect. When no more defects are found, it can be a sign to stop testing and therefore not extend the testing period, which would just costs (unnecessary) extra time and money.

12 of 40

See appendix [15038](#)

The end date of September 1<sup>st</sup> for the test execution is enormously important for the client. However, the way the test is progressing is disappointing. It is decided to start testing less of the system with the same team capacity so that the end date can still be met.

What is the consequence of this decision?

- A. higher risk
- B. higher costs
- C. more defects
- D. fewer defects

A. Correct. Less testing produces a higher risk, because the quality of the system is not fully mapped out (Sections 3.4 and 6.3).

B. Incorrect. No/hardly any impact on costs. Team capacity/lead time remains the same.

C. Incorrect. Less testing of the system is not directly related to more/less defects.

D. Incorrect. Less testing of the system is not directly related to more/less defects.

13 of 40

See appendix [15038](#)

Needless to say, the online payment option should be tested extensively. The client expects the test for this part to include traceability.

What is demonstrated with traceability?

- A. defects can be traced
- B. the project evaluation is accurate
- C. that testing is being carried out
- D. what is being tested

- A. Incorrect. Traceability demonstrates what is being tested.
- B. Incorrect. Traceability demonstrates what is being tested.
- C. Incorrect. That testing is being carried out is shown in explicit reporting.
- D. Correct. Traceability demonstrates what is being tested (Section 6.2.12).

14 of 40

See appendix [15038](#)

To determine the effectiveness of defect detection, the 'defect detection percentage' is used as a metric. During the system test, 20 defects are detected and during the acceptance test 60 defects are detected.

What is the 'defect detection percentage' of the system test after the acceptance test has been carried out?

- A. 25%
- B. 33%
- C. 50%
- D. 75%

- A. Correct. The total number of defects was 80. 20 is 25% of this total (Section 13.4).
- B. Incorrect. This calculation is the result of  $20/60$ , which is incorrect because it doesn't add the defects of the system test to the defects of the acceptance test for total defects before dividing.
- C. Incorrect. This calculation is the result of  $20/40$ , which is incorrect because the system test defects were subtracted from the acceptance test defects ( $60-20$ ). They should have been added.
- D. Incorrect. This calculation is the result of  $60/80$ , which is incorrect because it is the defect detection percentage of the acceptance test defects instead of the system test defects.

15 of 40

See appendix [15038](#)

Why is Test-Driven Development (TDD) on unit level testing a good idea?

- A. The unit tests are performed independently of this method.
- B. It gives an early insight into the quality of the test object.
- C. It provides an earlier result than code review.
- D. It provides an earlier result than refactoring.

A. Incorrect. In TDD, unit tests are embedded into the method, rather than independent of the method.

B. Correct. Because TDD presupposes automated tests in combination with iterative and incremental development, this quickly provides an insight into the quality of the test object (Section 7.2.7).

C. Incorrect. Code review is an additional quality measure, not a development method.

D. Incorrect. Refactoring is one of the possible process steps of TDD.

16 of 40

See appendix [15039](#)

Estimates of product risks have never been used in the libraries.

Why is the absolute classification method **not** a good choice for the product risk analysis?

- A. The detailed risk factors are unknown.
- B. The damage in case of failure and the chance of failure are not known.
- C. There is little experience in estimating product risks.

A. Incorrect. Detail risk factors are drawn up during the absolute classification approach and therefore do not need to be known in advance.

B. Incorrect. The damage in case of failure and the chance of failure must be estimated. Not knowing them is not a reason for not choosing the absolute classification method; the lack of experience in estimating them is a reason, however.

C. Correct. If there is not a lot of experience available, relative classification is usually used (Chapter 9).

17 of 40

See appendix [15039](#)

Why can the result of a completed product risk analysis still change?

- A. Certain risks were estimated incorrectly.
- B. The estimate was found to be incorrect
- C. The planning schedule was found to be incorrect

A. Correct. If risks are estimated incorrectly or circumstances (such as requirements) change, the result of a PRA will change (Chapter 9).  
B. Incorrect. The estimate will change as a consequence of a changed PRA.  
C. Incorrect. The planning schedule will change as a consequence of a changed PRA.

18 of 40

See appendix [15039](#)

The test procedure for 'PINS' is being estimated while the master test plan is being created.

Which units of account can be used?

(LDC=logical data collection, KLOC=kilo lines of code, Kilo= 1000)

- A. the number of LDC's, the number of screens and the KLOC
- B. the number of LDC's and the KLOC
- C. the number of screens and the KLOC
- D. the number of screens and the number of LDC's

A. Correct. An existing application is being used, which means that that the number of lines of code, the number of screens and the number of LDC's are assumed to be known (Section 11.3).  
B. Incorrect. An existing application is being used, which means that that the number of lines of code, the number of screens and the number of LDC's are assumed to be known.  
C. Incorrect. An existing application is being used, which means that that the number of lines of code, the number of screens and the number of LDC's are assumed to be known.  
D. Incorrect. An existing application is being used, which means that that the number of lines of code, the number of screens and the number of LDC's are assumed to be known.

19 of 40

See appendix [15039](#)

The interfaces are being developed iteratively.

Which estimation approach should be used when creating the master test plan if there are no experience figures available?

- A. extrapolation
- B. proportionate estimation
- C. test point analysis

A. Incorrect. Extrapolation is a good method for iterative development, but it cannot be used when writing an MTP because the experience figures must be known.

B. Correct. Proportionate estimation is a good method when creating an MTP even when no experience figures are available (Chapter 11).

C. Incorrect. The function points are not known.

20 of 40

See appendix [15039](#)

The test manager executes all activities from the start of the project. The aim is to start test process management as early as possible.

When does the control phase of the total test process start?

- A. before starting to create the master test plan (MTP)
- B. while creating the master test plan
- C. after the master test plan is consolidated

A. Incorrect. The control phase of the total test process management starts after creating the MTP or when one or more of the relevant test and evaluation levels have been started.

B. Incorrect. Test control phase of the total test process starts after creating the MTP or when one or more of the relevant test and evaluation levels have been started.

C. Correct. The control phase of the total test process starts after creating the MTP or when one or more of the relevant test and evaluation levels have been started (Sections 3.4 and 5.3).

21 of 40

See appendix [15039](#)

For 'BRU', it is decided to use the known parameter settings of Library 1.

Why is an acceptance test for 'BRU' necessary in this situation?

- A. The accepting party should verify the effectivity of the system.
- B. The system test executed by the supplier is not objective enough.
- C. The supplier must prove that the system satisfies the library's requirements.

A. Correct. The accepting party Library 3 has not used BRU in its operation before and therefore has to verify if the parameter settings meet the effectivity of the system. This usability aspect can only be answered by the user' organization (Section 6.1 and 10.2)

B. Incorrect. The important thing is not to demonstrate that the system is functioning properly, but to test whether particularly library 3 can use the system. This is done in an acceptance test.

C. Incorrect. The supplier of BRU does not have to demonstrate that its system is working properly because it already did this in the past. Moreover, this is done using a system test and not an acceptance test.

22 of 40

See appendix [15039](#)

The classification into a risk class and the size estimate are known.

Which estimation technique(s) is (are) recommended to estimate for the bookkeeping acceptance test?

- A. estimation based on the test object size
- B. estimation based on the ratio known from the literature
- C. proportionate estimation and estimation based on the test object size

A. Incorrect. It is better to work with two techniques rather than one.

B. Incorrect. It is better to work with two techniques rather than one.

C. Correct. It is better to work with two techniques rather than one (Chapter 11).

See appendix [15039](#)

The project manager for the project is proposing that maintenance of the test environments is made the responsibility of the administrators of the production environment.

Why is this combination of responsibilities not a good idea?

- A. The administrators of the production environment also maintain the production acceptance test environment.
- B. The administrators of the production environment do not have enough knowledge of the test environments.
- C. If there are production disruptions, it can mean that the maintenance of the test environments is not performed.

A. Incorrect. While this may be a true statement, it does not address the question of why the combination of responsibilities is not a good idea.

B. Incorrect. The administrators of the production environment often have a good knowledge of the test environment, especially in a simulated acceptance environment.

C. Correct. If there are any disruptions in production, it is possible that the test environments will not be maintained properly. Resolving production disruptions will take priority over the management of the test environment (Section 6.4; 8.4.5).

24 of 40

See appendix [15039](#)

What is the reason for the deployment of test tools in the Planning phase of this project?

- A. The deployment of tools can serve to leverage the implementation of a structured test approach.
- B. The deployment of tools speeds up the Execution phase.
- C. The deployment of tools creates a stable 'system landscape'.
- D. Without tools, it is not possible to set up a good test approach.

A. Correct. The deployment of tools can serve to leverage the implementation of a structured test approach. (from Section 6.4 to 8.5.2)  
B. Incorrect. The question is not addressing the benefits of test tools in the Execution phase, but rather is specifically addressing the benefits of test tool deployment during the Planning phase.  
C. Incorrect. Creation of a stable 'system landscape' is not a general reason for deployment of test tools in the Planning Phase.  
D. Incorrect. Although the deployment of tools can serve to leverage the implementation of a structured test approach, it is not a mandatory precondition for setting up a good test approach.

25 of 40

See appendix [15039](#)

The supplier wants to answer any questions and uncertainties among the accepting parties about the new 'BRU' parameter settings.

What is the **most** common evaluation technique for this?

- A. inspection
- B. review
- C. walkthrough

A. Incorrect. An inspection is mainly aimed at obtaining consensus on the quality of a product.  
B. Incorrect. A review is aimed at possible solutions and at finding and correcting errors.  
C. Correct. The aim of a walkthrough is to provide clear information about a product (Chapter 15).

26 of 40

See appendix [15039](#)

The first design of the interfaces is recorded in a functional design. A number of problems still have to be solved.

What is the **best** time for the designer to request a review?

- A. if the situation is not clear for the testers
- B. once the realization has started
- C. when a product is ready
- D. when possible courses for a solution need to be found

A. Incorrect. The function of a walkthrough is to make the situation clear.  
B. Incorrect. Once the realization has started, it is already too late for a review of the functional design.  
C. Incorrect. When a product is ready, it is better to carry out an inspection.  
D. Correct. A review focusses primarily on finding courses for a solution (Chapter 15).

27 of 40

See appendix [15039](#)

Why is a pre-test defined for the new bookkeeping package?

- A. to assess whether the central starting point can be built properly in the test environment
- B. to assess whether the supplier is keeping to the agreed time schedule
- C. to assess whether the package is working together properly with the interfaces that were built in-house
- D. to assess whether the quality of the package is sufficient for it to be tested

A. Incorrect. A pre-test is intended not to examine the structure of a starting point but particularly to assess the quality of the test object.  
B. Incorrect. The aim of a pre-test is to assess whether the quality of the test object is sufficient for it to be tested extensively.  
C. Incorrect. The aim of a pre-test is to assess whether the quality of the test object is sufficient for it to be tested extensively.  
D. Correct. The aim of a pre-test is to assess whether the quality of the test object is sufficient for it to be tested extensively (Section 6.6.3).

28 of 40

See appendix [15039](#)

The test manager wants to have a component-based version management system set up for all 'BRU', 'PINS' and other acceptance test environments.

Why is this the right decision?

- A. An acceptance test environment is a stable environment.
- B. It must be possible to test a test object under the same conditions each time.
- C. It is the only way to indicate what still has to be transferred to production.

A. Incorrect. An acceptance test environment is susceptible to changes.  
B. Correct. Registration of the environmental components makes it possible to control and manage an environment. A manageable environment is a necessary condition for always being able to test the test object under the same conditions each time (Section 8.4.3).  
C. Incorrect. A version management system is not a condition for indicating what must be put into production.

29 of 40

See appendix [15039](#)

It is taking longer than originally planned to execute the project. A tool purchased not long ago for automated testing is being deployed for the first time. The tool will eventually yield faster lead times. Unfortunately, this is just delaying the project even more. It is decided to discontinue the use of test automation tools for all libraries.

How could this decision to stop using the tool have been avoided?

- A. make sure everybody knows how much money was spent on the tool
- B. make sure there is user commitment
- C. make sure there is management's commitment

A. Incorrect. The costs are not relevant in this context.  
B. Incorrect. The commitment of the user organization is not relevant to whether the organization should continue using a tool.  
C. Correct. The management should be aware that use of the tool is an investment that usually yields a ROI in the longer term of faster and/or better testing (Section 8.5.7).

30 of 40

See appendix [15039](#)

An application integrator is working at the libraries. The test manager wants to appoint the application integrator as the quality inspector as well.

What is the advantage of combining these roles?

- A. The application integrator can ensure the agreements made are fulfilled.
- B. The application integrator carries out the system test and wants to be assured of the quality of the unit test.
- C. In this way, the application integrator can perform good defect management.

A. Correct. The roles of application integrator and quality inspector are ideally suited to ensure the agreements made are fulfilled (Section 16.3).

B. Incorrect. The application integrator carries out the unit test and the unit integration test but not the system test.

C. Incorrect. Defect management is indeed a task of the application integrator, but is not a consequence of combining this role with the role of quality inspector.

31 of 40

Various estimating techniques are used to compile the master test plan.

Why is the estimate for the unit test UT and unit integration test often missing?

- A. The UT and UIT are carried out by developers and not by testers.
- B. The UT and UIT are not part of the master test plan.
- C. The estimate for the UT and UIT is a fixed percentage of the entire test estimate.
- D. The estimate for the UT and UIT is often an integrated component in estimating the realization project.

A. Incorrect. Who carries out the tests is unrelated to whether an estimate is included in the MTP or not.

B. Incorrect. In an MTP, it is a good idea to indeed include the UT and UIT in order to harmonize them with the other test levels.

C. Incorrect. The estimate of the UT and UIT is not a fixed percentage of the entire estimate. UT and UIT usually are part of the development effort and not estimated in relation to the test levels.

D. Correct. The estimate of the UT and UIT is often an integrated component in estimating the realization project (Section 11.1, page 523).

**32 of 40**

While developing a new software release, in the Preparation phase it is found that the test basis is incomplete.

What is a good alternative for the test basis in this situation?

- A. 18 Attacks, by Whittaker and Jorgenson
- B. HICCUPP
- C. organize an information session

A. Incorrect. The 18 Attacks by Whittaker and Jorgenson are not an alternative when the test basis is incomplete, but can be used for creating tests in case of absence of test basis.

B. Incorrect. HICCUPP is not an alternative when the test basis is incomplete, but can be used for creating test cases in case of absence of test basis.

C. Correct. Organizing an information session is one of the ways for obtaining an alternative test basis when it appears to be incomplete (Section 6.5.1).

**33 of 40**

Why is a code review carried out during the unit testing period?

- A. to shorten the lead time of the unit test
- B. to increase the quality of the developed products
- C. so that a dynamic test can be carried out
- D. to determine whether test-driven development is possible

A. Incorrect. Code review is an additional quality measure and is not intended to shorten throughput times. However, a code review can result in a shorter lead time.

B. Correct. Code review is an additional quality measure for unit tests (Section 7.2.7).

C. Incorrect. Code review is an example of a static (test) activity and is not a determining factor for carrying out a dynamic test or not.

D. Incorrect. Test-Driven Development is an example of a different quality measure and is not dependent of a code review.

**34 of 40**

A developer is requested, in his/her role as a tester, to provide information about the maintainability of the system.

Which test tool type would be the **best** choice to address this request?

- A. Debugger
- B. Unit test tool
- C. Code-analysis tool
- D. Defect management tool

A. Incorrect. Debugging provides information about errors in the code and assists in tracing them to their source. It provides little to no insight into the maintainability of the system.

B. Incorrect. A unit test tool is used by the developer to create test scripts that automatically test a unit or a piece of script in a test harness. It provides little to no insight into the maintainability of the system.

C. Correct. Analysis of the code structure and coding rules gives an insight into the maintainability of the system (Section 7.2.8).

D. Incorrect. A defect management tool tracks defects and issues. It provides little or no insight into the maintainability of the system.

**35 of 40**

Which defects should be recorded during development testing?

- A. all defects detected by the developer
- B. all defects from all test types
- C. all defects to be examined by somebody other than the developer
- D. no defects need to be recorded during development testing

A. Incorrect. A developer does not have to record all defects.

B. Incorrect. During the development test, not all defects need to be recorded.

C. Correct. If somebody other than the developer has to examine a defect, it is very desirable that the defect is recorded in an agreed way (Section 7.3.1, page 360).

D. Incorrect. If somebody other than the developer has to examine a defect, it is desirable that the defect is recorded in an agreed way.

**36 of 40**

In a Test Factory, testware management still has to be set up.

What is an important condition for this?

- A. A test environment must be set up.
- B. Software must be delivered in releases.
- C. The service level must be recorded.

A. Incorrect. A test environment is a condition for testing, not for testware management.

B. Incorrect. Delivering software in releases is not directly related to testware management.

C. Correct. One important precondition for good testware management is that a service level should be drawn up; the service level should define measurable goals for testware management, e.g. how fast and to what extent testware must be supplied for a new test project. (Section 8.3.8).

**37 of 40**

An organization wants to create a permanent testing organization. The management wants control over and responsibility for the results, however, to remain with the project rather than the test organization.

In this situation, which type of test organization is recommended?

- A. Project-based testing
- B. Test Factory (TF)
- C. Test expertise center (TEC)

A. Incorrect. This is not a type of permanent test organization. It is often chosen instead of a permanent test organization when there is only an occasional demand for testers. The question refers specifically to types of 'permanent testing organization'.

B. Incorrect. The test factory bears responsibility for results (Section 8.3.6) In this situation, the managers wants the 'obligation to deliver results' at the project level, while still utilizing a permanent test organization.

C. Correct. A test expertise centre is typically just responsible for deploying personnel, the responsibility for results lies with the project (8.3.7 to 8.3.9).

**38 of 40**

A large software package has gone into production. Ten different types of environments were created and used in the preceding test procedure. Two environments that closely resembled production environments (simulated production environments) were preserved.

What is the aim of preserving simulated production environments?

- A. The test environments in the DTAP process must be preserved.
- B. The test environments will remain as up-to-date as possible.
- C. It must be possible to perform the system test and acceptance test parallel to each other.
- D. It must be possible to test both a production fix and a new version.

- A. Incorrect. DTAP is not relevant in this context.
- B. Incorrect. Preserving simulated production environments is not directly related to keeping an environment up-to-date. Procedures must be set up for this.
- C. Incorrect. The system test is usually not performed in a simulated production environment.
- D. Correct. It must be possible to test a production fix for the current version and a new version (release) in parallel (Section 8.4.7).

**39 of 40**

An organization wants to know whether it would be useful to purchase a tool for automated test execution.

What is the best way to investigate this?

- A. by means of a metaplan session
- B. by means of a project
- C. by means of a quick scan

- A. Incorrect. A metaplan session is used to collect ideas in a short space of time.
- B. Incorrect. A project is too weighty an instrument for this.
- C. Correct. A quick scan is a good instrument for this (Section 8.5.6).

40 of 40

What is the ratio of required experience between execution, advice and leadership of a test coordinator?

- A. The test coordinator is a specialist in the execution role and is experienced in the advisory role.
- B. The test coordinator is a specialist in the execution role and is experienced in the leadership role.
- C. The test coordinator is a specialist in both the execution and advisory roles.
- D. The test coordinator is a specialist in both the execution and leadership roles.

- A. Incorrect. This is the ratio of required experience for a test method expert or a test tool expert.
- B. Correct. A test coordinator is a specialist in the execution role and has experience in the leadership role (Section 8.6.4).
- C. Incorrect. This is the required experience level for a test (tool) consultant.
- D. Incorrect. This is the ratio of required experience for a test manager.

## Evaluation

The table below shows the correct answers to the questions in this sample examination.

number	answer	points	number	answer	points
1	B	1	21	A	1
2	B	1	22	C	1
3	B	1	23	C	1
4	D	1	24	A	1
5	C	1	25	C	1
6	C	1	26	D	1
7	B	1	27	D	1
8	B	1	28	B	1
9	C	1	29	C	1
10	B	1	30	A	1
11	C	1	31	D	1
12	A	1	32	C	1
13	D	1	33	B	1
14	A	1	34	C	1
15	B	1	35	C	1
16	C	1	36	C	1
17	A	1	37	C	1
18	A	1	38	D	1
19	B	1	39	C	1
20	C	1	40	B	1



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