



ITIL® Qualification:

MANAGING ACROSS THE LIFECYCLE (MALC) CERTIFICATE

Sample Paper 2, version 5.1

To be used with Case Study 1

Gradient Style, Complex Multiple Choice

QUESTION BOOKLET

Gradient Style, Complex Multiple Choice
120 minute paper
10 questions, Closed Book

Instructions

1. *All 10 questions should be attempted.*
2. *All answers are to be marked on the answer grid provided.*
3. *You have 120 minutes to complete this paper.*
4. *You must achieve 35 or more out of a possible 50 marks (70%) to pass this examination.*

Question One

Please refer to the case study

The business has asked for a significant change in order to improve the internet banking IT service. The change will improve the warranty level of the service package, including the enabling WAN service, which is provided by a third-party supplier. There are no technical changes to interfaces or dependencies.

You are responsible for the design of the overall service solution. You have verified that all inputs from the service strategy lifecycle stage are present and acceptable.

Which one of the following answer options is the BEST approach to ensure that the overall service solution will achieve an improved warranty level for the Internet banking IT service?

- A.
 - Create a design co-ordination process and use this for a consistent approach to service design activities, ensuring that all elements of the service design package are addressed.
 - Use the service level management and supplier management processes to develop agreed service level requirements and the associated service level targets, which the changed service must be designed to achieve.
 - Work with availability management, capacity management, IT service continuity management and information security management to define service level targets that relate to their areas of responsibility and to validate that the targets are realistic.
- B.
 - Use the service catalogue process to provide accurate information about the existing internet banking IT service, its interfaces and dependencies.
 - Work with the relevant supplier manager for the WAN to establish that the underpinning contract will support the service level requirements.
 - Work with the service level manager to define availability, capacity, IT service continuity and information security service level targets.
- C.
 - Finalize the service level targets for the internet banking IT service during service design.
 - Work with the technical specialists responsible for availability, capacity, IT service continuity and information security of the enabling services to ensure that the service level targets can be achieved.
 - Plan to work with the technical specialists to update service level targets when the service has been live for the initial service period and service measurements are available.
- D.
 - Initiate the development of a service model to ensure that technical specialists understand the structure and dynamics of the changed service.
 - Work with the technical specialists to develop and validate service measures to underpin the service level targets defined in the service model, and ensure that the day-to-day operation of relevant processes match service level targets.
 - Work with the supplier manager to establish a disaster recovery site to ensure that availability targets in the service design package can be met.

Question Two

Please refer to the case study

You are the design co-ordination process manager. You have reviewed the IT service management (ITSM) capabilities and resources for the desktop service and the management information (MI) service. A review has also been completed of the changes that were carried out to these IT services over the last six months. It included a review of the service requirements. The key findings are as listed below:

1. Some service requirements were missing and this led to unexpected warranty issues in early life support. One deployment resulted in significant incidents for HQ staff.
2. Although the desktop service design package (SDP) is generally good, the plans did not include resource requirements for additional incident and problem-handling. There were no metrics or acceptance criteria for changes in incident volumes during early life support.
3. There is no evidence of feedback on the SDP from the service desk and IT operations staff. There is a risk of alienating key support and operations staff during periods of change and a risk of increasing staff resistance to change.
4. The configuration items (CIs) within the MI application are defined. However, the MI application depends on components in the desktop build that are not uniquely identified as dependent CIs. This has resulted in failed changes for parallel deployments of the desktop build for a security update and an update to the MI application.
5. Configuration item (CI) information for the desktop build is good and accessible to the technical management team. However, this information is not shared and is not accessible to other teams.

The CIO has asked you to recommend improvements to ensure that similar implementations planned for the next few months will be successful. The improvements should cover all of the key findings and should be able to be introduced quickly, to avoid similar problems in future.

Which one of the following answer options describes the BEST set of improvements given the situation and key findings?

- A.
 - Measure key metrics and report these against predicted levels before and during any deployment. Use these to set acceptance criteria during service transition.
 - Train support staff to use the existing service asset and configuration information to perform their roles.
 - Involve IT support staff, customers and user representatives in reviewing the service design package (SDP) and in service rehearsals.
- B.
 - Complete the review of the service requirements.
 - Review and improve the acceptance criteria for service transition, as the warranty of the service is difficult to support.
 - Improve the change management process by using formal change evaluation to evaluate similar parallel deployments.
- C.
 - Review the business and IT strategy and the definition of the SDP.
 - Perform a strategic review of the desktop service and MI service. The review should ensure that all service requirements are defined.
 - Develop a policy of improvement and set up an implementation project for the IT function. This will enable improvements in measurement and reporting of incident volumes and user expectations.

Question continues overleaf

- D.
- Hold review meetings with customers, user representatives and IT support staff throughout the service design lifecycle stage and during service rehearsals.
 - Agree exit criteria for early life support in the SDP, including measures for incident volumes.
 - Define configuration items (CIs) for the desktop deployment and dependent CIs in parallel deployments. Provide IT staff with access to quality configuration information in order for them to diagnose incidents and problems easily.

Question Three

Please refer to the case study

As the bank has pursued its expansion strategy, investment in IT services has proven more and more difficult to manage. Both the shared services director and the CIO are concerned that costs are rising without clear visibility into the source of the costs or the value to the bank of the expenditure. There is significant concern that key bank services may be compromised if IT is not investing in the right areas. This concern is supported by the recent online banking information security breach.

The CEO has indicated that not all the IT staff members brought into the bank as a result of the acquisition of other banks can be retained and that the IT department will be required to make significant cuts unless business justification for staffing levels can be provided.

You are the manager of the newly-formed service management office (SMO). You have been asked by the CIO to analyse the situation and define a plan to ensure that the costs of service provision will be consistently aligned with overall bank priorities now and in the future.

Which one of the following answer options represents the BEST course of action to recommend?

- A. The service portfolio should be formalized, starting with the information already available in the service catalogue and other sources. Existing business interactions should be matured into formal business relationship management with a focus on understanding the needs of the various customer groups and the overall needs of the business. Meanwhile IT needs to work with all appropriate business areas to put in place methods and metrics to determine the total cost of each service as well as its value to the business. Classifying services as 'core, enhancing or enabling' can be used initially to understand, and eventually to quantify, the business outcomes supported by each service.
- B. The IT organization should focus on service costing to determine the way funds are being expended now. This will include working with the business to determine which services cost the most and why. Then meetings should be held with the individual customer groups to review the services and to determine which services they believe to be most important to their work activities. The services in the service catalogue should be classified as 'core, enhancing or enabling' to support better budgeting decisions. Operational metrics should be created to allow collection of service-specific data and management information for continual service improvement.
- C. An inventory of IT services should be created, classifying them as representing money spent, value added or value realized. IT should then hold meetings with customers to review the current services and to determine which services they believe to be most important to their work activities. Service design practices need to be reviewed and revised to ensure that the relative importance of new or changed services is properly reflected in service designs and the resulting service design packages. Service provider value capture should be embedded into the design of all services and service changes.
- D. You propose beginning by working with the business and IT to classify the services in the service catalogue as 'core, enhancing or enabling' as a first step in understanding and communicating the role of each service in business activity. The service portfolio management process should then be reviewed and revised to ensure that the contribution of each IT service to business activity is clearly understood. Existing data should be used to create preliminary cost information on an individual service basis and to identify opportunities for continual service improvement from a cost perspective. IT should then work with the Finance division to develop an approach to comprehensive service costing.

Question Four

Please refer to the case study

You are the service improvement manager. Together with the change management process owner, you are planning a set of tactical improvements to the way IT changes will be handled in the next six months. Key drivers for the improvements are:

- There have been recent incidents following unauthorized changes to the branch infrastructure.
- It is important that a new IT service now under development achieves its required performance. This new IT service will support a new business-critical insurance service.

The current change authorization model for IT is:

	Change authority	Level of risk/impact
Level 0	Business executive board	High risk/impact and/or high cost
Level 1	IT steering group	Change has an impact on multiple IT services or divisions
Level 2	Change advisory board (CAB) or emergency CAB (ECAB)	Change has an impact on a local group
Level 3	Change manager	Low risk change
Level 4	Local authorization	Standard change

Which one of the following answer options is the BEST proposal for TACTICAL improvements to the way IT changes are handled?

- A.
- Consider refresher training for the customer delivery division and key resources from new acquisitions.
 - Establish country IT change advisory boards at level 1 to speed up handling of IT changes, with these country boards reporting into the business executive board.
 - Implement a change evaluation process.
 - Expand testing of utility for new and changed services.
- B.
- Review the change management process and ensure that the branch IT infrastructure is within scope.
 - Check that each change authority has the right representatives. This should include the customer delivery division and representatives from IT suppliers and new acquisitions.
 - Introduce the key elements of a change evaluation process.
 - Increase focus on warranty during testing, and include representatives from the financial products division.

Question continues overleaf

- C.
 - Introduce a service management toolset to increase visibility into changes and their impact on live services.
 - Reduce the number of change authority levels, and specify that the new insurance service is handled at a lower level to reduce time-to-market.
 - Extend the existing change evaluation process for level 1 and level 2 changes in the customer delivery and shared services divisions.
 - Implement a knowledge management process to optimize use of data and to improve efficiency across business divisions.
- D.
 - Evaluate the change management process within the shared services division and ensure on-going control over live services in operation.
 - Check that the users of the change management process have completed training. Consider refresher training for suppliers and teams where there have been change-related incidents.
 - Make adjustments to the change authorities, such as ensuring that a customer delivery division representative is an active member of level 2.
 - Assess operational readiness during testing, particularly related to support after go-live.

Question Five

Please refer to the Case study

To support the bank's ambitious expansion plans, the CIO is keen to increase the quality of the IT services that underpin the business activities. A critical success factor is improving the bank's IT service management capability.

Customer satisfaction surveys and service design packages (SDPs) were identified as service improvement suggestions but they are not yet widely used. However the bank is improving its process for major changes that involve significant cost, risk or organizational impact, and the bank has just started to capture customer satisfaction survey measurements.

You are the service improvement manager. In further support of the current quality initiative the CIO has asked you to analyse the following additional service improvement ideas and to recommend the four suggestions that should be considered next.

The list below shows the additional service improvement ideas:

1. Ensure that each SDP fully documents all required testing of service utility.
2. Plan to incorporate customer satisfaction targets into the service level agreements (SLAs).
3. Introduce the principles of balanced design for major changes as part of the service design lifecycle.
4. Implement a continual service improvement (CSI) register to record and prioritize service improvement suggestions and ensure that associated KPIs are identified.
5. For each implementation of a new service carry out a customer satisfaction survey with business representatives.
6. Create an SDP for each major change and include a definition of each stage of the transition with suitable entry and exit criteria.
7. Increase the amount of utility testing for all products and IT services before release and deployment.
8. Reduce the number of new service support issues by introducing involvement from the business and service implementation unit at the service design stage.

Which one of the following is the BEST set of four improvements to consider next?

A. 1, 4, 5, 7.

B. 2, 3, 4, 6.

C. 3, 4, 5, 8.

D. 1, 5, 7, 8.

Question Six

Please refer to the case study

The service level manager worked with the business to agree the following service level targets for each of the relevant IT services supporting the bank's targets:

- High availability (99.99%+)
- High customer satisfaction (4 or above on a scale from 1-5, where 5 is the highest)
- Reduction in service costs of 20%.

You have been asked to perform a strengths – weaknesses – opportunities – threats (SWOT) analysis of IT service management within the bank considering the above service level targets.

Which one of the following answer options represents the MOST appropriate SWOT analysis of IT service management within the bank, given the service level targets in the scenario and in the context of the overall case study?

A.

Strengths: 1. Dedicated physical servers to prevent cross-service impact from incidents. 2. Business and IT are strictly separated to support good governance. 3. Standardized IT support as "one size fits all".	Weaknesses: 4. Issues with integration of management information across the business units. 5. Insufficient commitment of staff and finance for dealing with suppliers. 6. Insufficient network security.
Opportunities: 7. Implementing an integrated service management toolset. 8. Actively involving banking staff in service design.	Threats: 9. Reducing co-operation between business divisions. 10. Focusing on overseas business could threaten bank's success in domestic market.

B.

Strengths: 1. Strict control over access to live services. 2. Good service desk and incident management process. 3. Well-established culture of improvement.	Weaknesses: 4. Inadequate software testing. 5. Insufficient data for diagnosis by incident and problem teams. 6. Limited financial information on cost of individual services.
Opportunities: 7. Available funding for improvement projects across both business and IT. 8. Business strategy to integrate and automate business and IT operations.	Threats: 9. Infrastructure management outside of the shared services division. 10. Language, time-zone and cultural issues.

Question continues overleaf

C.

Strengths: <ol style="list-style-type: none"> 1. Remote back-up site exists for service continuity. 2. IT department has a unit focused on service quality. 3. The business and IT work closely together. 	Weaknesses: <ol style="list-style-type: none"> 4. No formal change evaluation. 5. Missing proactive element of problem management. 6. Lack of a formally maintained service portfolio.
Opportunities: <ol style="list-style-type: none"> 7. Acknowledgement that effectiveness and economy could be improved by involving IT staff more in developing new and changed business services. 8. Costs of virtualization solutions are reducing. 	Threats: <ol style="list-style-type: none"> 9. Handling of business questions by business support teams. 10. Changes in legislation.

D.

Strengths: <ol style="list-style-type: none"> 1. Well-maintained IT service catalogue easily accessible to staff. 2. Service request software supports direct ordering of services. 3. Negotiation of service level agreements during service design and service transition. 	Weaknesses: <ol style="list-style-type: none"> 4. Dependence on the knowledge of short-term contract staff. 5. The operations control centre covers both applications and infrastructure. 6. Service asset and configuration management provides detailed data from automated discovery tools.
Opportunities: <ol style="list-style-type: none"> 7. Purchasing as opposed to developing software. 8. Renegotiating contract with external WAN provider. 	Threats: <ol style="list-style-type: none"> 9. Security breaches and denial-of-service attacks. 10. High turnover from low employee satisfaction.

Question Seven

Please refer to the case study

The shared services division has been asked to cut costs substantially. A new project has just been approved to identify the cost of individual IT services and usage by each customer. However the chief information officer (CIO) believes that the bank needs to focus on the value to the business of the IT services, in addition to the cost of service provision.

The CIO is preparing a presentation for the bank's senior management team. These are all customers of the IT services. The purpose of the presentation is to influence the senior management team to consider the value to the business from IT services.

From the following answer options, which one is the BEST description of the characteristics of value in the context of the case study and scenario?

- A. Value is defined by customers and does not depend on what was delivered. A key characteristic of value is defining it in terms of the business outcomes that are achieved, and measuring value through financial returns and cost savings. The delivery of the bank's corporate vision will be the ultimate measure of value in 18 months' time. This will depend on the percentage increase in income generated from internet banking and from customers living outside the HQ country. Value can also be realized through the delivery of business outcomes and solutions within company constraints such as legislation, regulatory, finance and security.
- B. Value is defined by customers and they will make the ultimate decision about whether an IT service is valuable. Customers will select an affordable mix of features and make the final choice about what is valuable to them. Customers do not always measure value in financial terms, as some services are not designed to produce revenue. Value can be measured by meeting some other organizational objective, such as human resource management or a social responsibility programme. Value is defined in this financial year for the next financial year and may change if the business and IT strategies change.
- C. Customers decide whether an IT service is valuable. They will select a service or product that represents an affordable mix of features at a price they are willing to pay in order to realize the desired business outcome. A key characteristic of value is the achievement of objectives. At the bank, value can be measured through financial returns, such as the percentage increase in income generated from internet banking and from customers living outside the HQ country. Value can also be measured by the achievement of the objective to integrate and automate business and IT operations. Value will change over time as circumstances change and each new or changed IT service is used.
- D. Customers decide whether an IT service is valuable. An affordable mix of features is important as a customer will make the final choice about what is valuable to them. Customers within the bank are likely to measure value in financial terms and may indicate how much they are prepared to pay for a service that helps them to realize the desired business outcome. An IT service may also be designed to achieve other organizational objectives, such as integration and automation of business and IT operations within company constraints, e.g. legislation, regulatory and security constraints.

Question Eight

Please refer to the case study

In the last few months, there have been major incidents for the internet banking IT service. There were serious SLA breaches with the underpinning contract for the WAN service in 50% of the countries outside the HQ country. The CIO is concerned that these issues and current operational risks will have a negative impact on the business strategy.

The critical success factors (CSF) for service level management for IT services are:

- Manage the quality of IT services
- Manage the availability and reliability of the IT services
- Deliver the agreed IT services at affordable costs.

The extract of the measurement framework grid that applies to the management of the internet banking IT service and the WAN service is shown below:

Row	KPI	Measurement	Target
1	Increase in customer perception and satisfaction with IT service quality	Customer perception and satisfaction survey results	10% increase in customer perception and satisfaction with IT service quality
2	Percentage improvement in overall end-to-end availability of the IT services	End-to-end availability based on availability of components that make up the service. Availability of the web servers, network availability, application availability	2% increase in availability of IT services in each country

Which one of the following options is the BEST suggestion for maintaining or improving these key performance indicators (KPIs)?

A. Do not change the KPIs, as they provide adequate support for the CSFs.

B. Add KPIs:

- Reduction in the impact and number of business transactions lost due to IT failures
- Reduction in the number of service breaches caused by suppliers
- Reduction in the number of risks caused by a security breach of an IT service
- Decrease in the costs associated with IT service provision.

C. Add KPIs:

- Increase in customer satisfaction with the availability of service
- Reduction in the number of incidents caused by suppliers
- Reduction in the number of security breaches and security incidents
- Decrease in the cost of incident resolution.

D. Add KPIs:

- Reduction in service level breaches for customer-facing services and supporting services
- Reduction in the number of incidents that cause downtime
- Reduction in the number and impact of security breaches and security incidents
- Decrease in the cost of incident resolution.

Question Nine

This question does **NOT** use the case study

A government project is in progress to introduce a service for public voting, available over the internet to all citizens during elections. The objective is for 40 percent of votes to be registered electronically within five years. The project is expected to lead to average yearly cost savings of 60 percent, mostly in the form of staff reductions and increased efficiency in the administration department responsible for running elections.

The project fulfils an election pledge and is being sponsored by the present government. There are several groups who are not very enthusiastic about the changes, including employees within the affected department and their union representatives. The debates leading up to the decision to initiate the project have also led to a lot of media and general public interest, and it is imperative that appropriate stakeholder management is in place to ensure project success.

The new service is currently being designed by an external vendor. In preparation for the next stage of the project, the service transition team is working with the service design team to ensure that stakeholder interests have been identified.

The following is the (simplified) power impact matrix for the service transition:

Importance of stakeholder			Impact of new service on stakeholder
Low	Medium	High	
Administration department		General public	
	Security management	Project team	
Union representatives	Media	Government External vendor	Low

Which one of the following commitment charts MOST appropriately describes the desired situation which is to help plan the service transition in the context of the scenario?

Question continues overleaf

A.

Stakeholder	Not committed	No resistance	Helps it happen	Makes it happen
Project team				X
Security management			X	
General public				X
Media		X		
Government				X
External vendor		X		
Administration department			X	
Union representatives		X		

B.

Stakeholder	Not committed	No resistance	Helps it happen	Makes it happen
Project team		X		
Security management		X		
General public			X	
Media			X	
Government	X			
External vendor		X		
Administration department	X			
Union representatives				X

C.

Stakeholder	Not committed	No resistance	Helps it happen	Makes it happen
Project team				X
Security management				X
General public		X		
Media			X	
Government		X		
External vendor		X		
Administration department			X	
Union representatives	X			

D.

Stakeholder	Not committed	No resistance	Helps it happen	Makes it happen
Project team				X
Security management			X	
General public				X
Media		X		
Government			X	
External vendor			X	
Administration department		X		
Union representatives		X		

Question Ten

This question does **NOT** use the case study

An organization employs many people who are technically competent and who have a good service culture. However this is not the case across the whole IT department. It is felt that an overall skills and organization assessment should be undertaken to understand how to make best use of the staff and to identify where there are skills deficiencies.

In the past the focus within the IT department has been on processes, with little thought given to the overall departmental structure and interfaces. Some of the IT service management (ITSM) processes are reasonably mature but further progress with them has been impossible because interfaces between processes, lifecycle stages and customers and users are not in place.

It has been decided to look at the organization with a view to moving from the current structure (described as a network or stage 1 structure) to a more collaborative approach, in order to improve IT service provision.

The factors driving the organizational change programme have been documented and approved by senior management.

Which one of the following answer options describes the BEST set of steps to follow to meet the needs of the organization?

- A.
 - 1. A full ITSM assessment should be undertaken looking at all aspects of IT service provision. The desired organizational structure which meets the needs identified by the ITSM assessment should be determined. This will include changes to processes, roles and responsibilities. The appropriate number of people in each section will need to be clearly defined. All required roles and skills should be documented in a RACI matrix. An IT steering group will be a key component of the new structure, to ensure business needs are taken into account.
 - 2. Implement the approved organizational structure and allocate a senior manager with appropriate organizational change experience to manage the change programme. Set up a communications project to explain what is happening and why, and to seek views from staff. Recruit additional staff if necessary to fill any skills gap and re-train staff where possible.
- B.
 - 1. An assessment of the current organization should be undertaken. All ITIL processes including current roles and responsibilities for the processes should be documented, and their maturity levels assessed.
 - 2. The next step will be to ensure that staff members are allocated to all activities within all the processes. Where there are skill gaps, implement process training programmes to ensure that everyone has the appropriate skills to do the job to which they have been allocated. Ensure sufficient staff members are allocated to every process and recruit if necessary. All process activities should be documented, and interfaces between processes identified and also documented. The programme of change should be managed by an external consultancy company who have experience in this type of work.

Question continues overleaf

- C.
 - 1. Identify the appropriate and desired organizational structure, and get senior management buy-in. Define the required functions and departments together with the processes they will be responsible for. Define the roles and responsibilities, and the numbers of people for each role using a RACI matrix; which is an ideal tool to assist in this task.
 - 2. The next step requires the implementation of the new organizational structure. This programme of change needs to have an overall accountable person from the senior management team, in order to manage the change. Set up a communications project to explain to staff what will happen. Recruit additional staff where necessary to fill the skills gap.

- D.
 - 1. Review the current design of the IT organization, and design an appropriate structure, taking into account the overall business and IT strategy. Define the required roles and responsibilities using a RACI matrix to assist with this task. A key component of the new structure will be the IT steering group to ensure business and IT requirements are taken into account.
 - 2. Implementation will involve a major programme of change. Management of the concerns of staff will be vital. Commitment from the senior management team will also be important. Allocate a skilled organizational change manager to manage the change programme. Set up a communications project to inform people about plans and to enable staff views to be taken into account. Wherever possible, identified skill gaps should be filled by training and on-the-job work experience.