



ITIL® Intermediate Capability Stream:

PLANNING, PROTECTION AND OPTIMIZATION (PPO) CERTIFICATE

Sample Paper 1, version 6.1

Gradient Style, Complex Multiple Choice

QUESTION BOOKLET

Gradient Style Multiple Choice
90 minute paper
8 questions, Closed Book

Instructions

1. *All 8 questions should be attempted.*
2. *You should refer to the accompanying Scenario Booklet to answer each question.*
3. *All answers are to be marked on the answer grid provided.*
4. *You have 90 minutes to complete this paper.*
5. *You must achieve 28 or more out of a possible 40 marks (70%) to pass this examination.*

Question One

Refer to Scenario One

You are the Central Technology Group's (CTG's) availability manager and have been asked to respond to SC's concerns.

Which one of the following options is the BEST approach to take in order to respond to SC's concerns about the Premier Loan Application System (PLAS) service?

- A. Liaise with CTG's application support team to review the design of the PLAS application and establish a mechanism for measuring the availability of each component. The contract with V-FACT should be reviewed to ensure this supports the PLAS availability requirement. The service level agreement (SLA) should be amended to include targets for each component, such as application and telephony, to ensure SC has greater visibility of the underlying causes of unavailability.
- B. As the two-day guarantee target has been missed, you should recommend an increased target of 99.9% availability for the PLAS service. The CTG application development team should be asked to create a proposal for re-designing PLAS to provide continuous availability with a 99.9% availability target. The SLA and associated service level monitoring should be amended to reflect this change, and you should ensure that this new target is fully understood by CTG staff and SC.
- C. Determine the impact of the outages and understand the availability required to satisfy the two-day guarantee. You should investigate and agree the maximum time that PLAS can be unavailable before the two-day guarantee target is jeopardized. This timescale should be used to determine a target for mean time to restore service (MTRS), and this should be included in the SLA. You should also agree the minimum performance requirements for PLAS, including a threshold at which loss of performance will be considered as unavailability.
- D. Liaise with the CTG application support team to review the design of the PLAS application and ascertain whether the current availability target is appropriate. You should also propose that maintainability and serviceability targets are added to the SLA. In addition, the SLA should contain a separate measurement of degraded PLAS performance. As a gesture of goodwill, you should ask the service level manager to amend the availability figure for the previous month to 97.51%, in order to include the business impact of the second incident.

Question Two

Refer to Scenario Two

You are the new IT director. You are convinced that implementation of service design processes will allow the company's IT organization to improve service quality while providing better control of costs in anticipation of greater pressure to keep rates low. Management, however, doubts that the additional cost of service design processes can be justified. You have scheduled a meeting with the management board to present your argument.

Which of the following approaches offers the BEST chance of success?

- A. Your presentation includes the following benefits of service design:
- Reduced total cost of ownership (TCO) by ensuring capacity matches business needs
 - Improved service alignment by establishing service level agreements (SLAs) and service improvement programmes
 - Improved IT governance by building controls into service designs
 - Improved consistency of services by avoiding incidents and ensuring that capacity and availability meet business needs.
- B. Your presentation includes the following benefits of service design:
- Reduced TCO by reducing incidents and avoiding re-work
 - Improved service alignment by understanding business requirements and ensuring they are designed into the services
 - Improved consistency of service by ensuring that functional design meet business needs
 - Eased implementation of new services with less likelihood of schedule delays and budget overruns.
- C. Your presentation includes the following benefits of service design:
- Eased implementation of new services with less likelihood of schedule delays and budget overruns
 - Reduced TCO by minimizing staff on the service desk
 - Improved information and decision-making by introducing and monitoring effective measurements
 - Increased ability to understand what types and levels of service will make the customer successful.
- D. Your presentation includes the following benefits of ITIL:
- Improved service management by ensuring that people, processes, and partners are included in addition to the existing focus on products
 - Improved accountability by ensuring that all aspects of required services are documented in a service design package (SDP)
 - Reduction in delays caused by unexpected clashes and dependencies
 - Improved mean time to restore service (MTRS) by designing recoverability into services

Question Three

Refer to Scenario Three

You have been asked to recommend additional IT service continuity measures for the CAD design database and stock control system.

Which one of the following options is the MOST appropriate set of recommendations?

- A.
 - Install duplicate IT equipment at the EC-North site to enable mirroring and load balancing between the two sites.
 - Upgrade the network link between the two sites to enable immediate data transfer and synchronization in real time. This will enable immediate recovery of the services and will minimize the impact of downtime on the business.
 - Assess the impact of the recent power outage at EC-South to justify the required expenditure.
- B.
 - Implement a service recovery plan using the spare computer room at EC-North, which already has the required power, cabling and telecommunications connections.
 - Use the desktop CAD systems to continue producing designs, and use manual stock control processes to manage spare parts while the design database and stock control system are unavailable.
 - Purchase replacement servers for the design database and the stock control system following any failure, so that expenditure will only be incurred when actually required.
- C.
 - Implement recovery for the design database and the stock control system by taking backups at the end of each working day and storing off-site.
 - Negotiate an agreement with a third-party to provide a portable computer room with appropriate IT equipment to allow the services to be restored from backup tapes. This would reduce the need for EC to install and maintain standby equipment at its own sites.
 - Ensure that this solution can be delivered to EC within 24 hours, ready for EC to start configuring the equipment.
- D.
 - Implement hot standby facilities in the spare accommodation at EC-North.
 - Take a backup of the design database and the stock control system each night, and deliver the backup media to EC-North for storage. The systems may then be recreated quickly on servers held in the computer room at EC-North.
 - Test the backup and restore processes regularly to ensure that they are effective and that the systems can be restarted within twelve hours.

Question Four

Refer to Scenario Four

As the manager of information security management (ISM), you want to construct a RACI matrix showing the roles involved in carrying out each activity, and categorizing each as preventive, reductive, detective, repressive, or corrective. Which one of the following charts BEST represents categorization and role assignment? Refer to the scenario for the activity numbers.

A.

Activity #	Type	ISM owner	ISM manager	Service desk	Application development	Human resources	Event management owner	Event management manager	Applications management	Corporate governance
1	Detective		I				A	R		
2	Preventive	A	R		R					
3	Repressive	A	R						R	
4	Preventive		R	R		A				
5	Corrective		C							AR
6	Reductive		I				A	R		

B.

Activity #	Type	ISM owner	ISM manager	Service desk	Application development	Human resources	Event management owner	Event management manager	Applications management	Corporate governance
1	Detective		A	R				R		
2	Repressive	A	R		R					
3	Reductive	A	R						R	
4	Reductive	A	R	R		C				
5	Corrective	A	C							R
6	Preventive		I				A	R		

Question continues overleaf

C.

Activity #	Type	ISM owner	ISM manager	Service desk	Application development	Human resources	Event management owner	Event management manager	Applications management	Corporate governance
1	Detective		I				A	R		
2	Preventive	A	R		R					
3	Reductive	A	R						R	
4	Preventive	A	R	R		C				
5	Corrective		C							AR
6	Repressive		I				A	R		

D.

Activity #	Type	ISM owner	ISM manager	Service desk	Application development	Human resources	Event management owner	Event management manager	Applications management	Corporate governance
1	Reductive	R	I				A	R		
2	Reductive		R		AR					
3	Preventive	A	R						R	
4	Detective		R	A		C				
5	Repressive	A	C							AR
6	Corrective		I				A	R		

Question Five

Refer to Scenario Five

You have been appointed as the capacity manager for FSC and you have been asked to reduce costs through server consolidation.

Which one of the following options is the MOST appropriate way to achieve this?

You should:

- A.
 - Meet with application developers to understand how applications use resources during different levels of demand.
 - Identify optimal levels for processor, memory and disk utilization.
 - Analyse the current levels for processor, memory and disk utilization.
 - Use this data to identify which servers have excess capacity and should be consolidated.
- B.
 - Meet with customers to understand their experiences, such as trade execution time, and relate this to resource utilization.
 - Meet with the business to learn about business activity and expected future growth.
 - Use modelling techniques to recommend a consolidation strategy based on expected transaction volumes.
 - Investigate new technologies such as on-demand computing to handle peak workloads.
- C.
 - Meet with representatives of the business to gather future transaction volumes.
 - Analyse historical transaction data to identify trends.
 - Combine this data with resource utilization statistics to gain an understanding of the impact of business activity.
 - Use modelling techniques to determine what capacity is required to support anticipated transaction volumes and use this to formulate a server consolidation strategy.
- D.
 - Start collecting data on resource utilization and create a baseline.
 - Identify any servers operating at less than 10% capacity and consider them as candidates for consolidation.
 - Complete an initial consolidation exercise by moving work between servers, then re-baseline the utilization data.
 - Continue with this consolidating approach until the average server utilization is 80%.

Question Six

Refer to Scenario Six

As the IT service manager for the service company, you need to advise the bank of the support you can provide during the emergency. What would be the most appropriate support?

- A. The service company will make its best effort to process the additional workload, but the bank will need to accept that capacity is constrained and that it will, therefore, take longer to process the loan applications. Loan applications will be processed 24 hours per day. Internal reporting will be suspended during the emergency. However, the 30% redundancy will not be used in order to ensure that availability will not be compromised. In this way, the service company can continue to satisfy its contractual obligations.
- B. There is sufficient capacity for loan applications if the 30% redundancy is applied to normal processing. However, due to the importance of nightly regulatory reporting, use of resources for loan application processing must be kept to an absolute minimum at night, so the service company will use differential charging to encourage the bank to do all its loan application processing during normal working hours.
- C. The service company will need to acquire additional capacity to meet the extraordinary demand. Computing resources and accommodation will be leased for the expected six month's duration of the emergency. During this period, the requirement for 30% redundancy will not be relaxed, so the additional resources need to include the redundancy. Having the additional capacity will mean that normal reporting can continue. Although the additional capacity will increase the service company's costs, it expects to recover those costs when the contract is renewed.
- D. There is not enough capacity to process the additional volume. Use of the redundancy will partially fill the gap, but additional resources need to be leased. Such equipment should be sufficient to accommodate the additional transaction with the 30% redundancy included on an as-needed basis. With the additional resources, all reporting can be accomplished in the time available. As the additional capacity will be more expensive, the service company will negotiate a higher rate for volumes beyond those stipulated in the contract.

Question Seven

Refer to Scenario Seven

As the IT Service Manager, you must assign process management responsibilities for the capacity management, availability management, information security management, and IT service continuity management processes among two of the three existing staff and let one person go.

Based on your understanding of the responsibilities of each role, the skills required to undertake those responsibilities, and the results of the evaluation of the three people, which of the following represents the best assignment of the roles?

- A.
 - Capacity Person A
 - Availability Person B
 - Information security Person B
 - ITSCM Person B
 - Not required Person C

- B.
 - Capacity Person A
 - Availability Person A
 - Information security Person B
 - ITSCM Person B
 - Not required Person C

- C.
 - Capacity Person C
 - Availability Person C
 - Information security Person C
 - ITSCM Person A
 - Not required Person B

- D.
 - Capacity Person C
 - Availability Person C
 - Information security Person B
 - ITSCM Person B
 - Not required Person A

Question Eight

Refer to Scenario Eight

You are the senior IT manager for APC and have responsibility for ensuring a successful integration of FinDoc's IT organization and services.

Which one of the following options is the BEST approach toward a successful integration?

- A. You should meet with FinDoc's management to gain their full support for service management processes. In particular, you should ensure that FinDoc's management understands that security is a responsibility of the business and not just a responsibility of IT. Because of the tight deadline requirements that are characteristic of the financial publishing business, you should ask FinDoc's management to advise you of their publication schedules.
- B. The most important action you should take is to conduct an awareness campaign to ensure that FinDoc's management is fully informed of APC's IT strategy. You should verify that the FinDoc infrastructure is capable of providing the level of availability demanded by the business. Finally, given the need for security, you should ensure that any FinDoc IT employee who has resigned does not divulge confidential information.
- C. It is important that you should meet with FinDoc's management to gain their full support for the capacity management, IT security management, availability management, and IT service continuity management processes. As it is essential that the transition of FinDoc's services is free of disruption to customers and users, you should verify that the APC infrastructure is capable of providing the capacity and availability required by FinDoc's customers. You will need to ensure that the information provided to IT by FinDoc's management is accurate and timely.
- D. You should meet with FinDoc's management to determine what changes need to be made to APC's IT security policy. In doing so, you should ensure that FinDoc's management understand that security is a responsibility of the business and not just a responsibility of IT, and that you will need their commitment and support for the transition to be successful. You should also negotiate an agreement allowing you to obtain as much information as possible about publication schedules so that you can perform effective business capacity management.