

Q57. In the capacity management process of IT service management, which of the following is an appropriate precaution to observe when the utilization of an online system's capacity is monitored?

- a) Focus only on the maximum value of performance data in each time interval and check deviation from the management limit.
- b) Measure the performance during offline hours to avoid a decline in service level during online hours.
- c) Monitor multiple measurement items such as response time and CPU utilization on a regular basis.
- d) Record incidents concerning capacity and performance.

Q58. In IT service management, which of the following is the most appropriate functional organization that provides a single point of contact and tries to rapidly restore normal service operations to users?

- a) Service desk
- b) Service management
- c) Service provider
- d) Supplier

Q55. Which of the following corresponds to benchmarking in process improvement of service management?

- a) The availability, reliability, and performance are measured at the service level, and a report is sent to the customers.
- b) The current status of IT service management is analyzed from the viewpoint of strengths, weaknesses, opportunities, and threats.
- c) The performance of IT services is measured from the viewpoint of finance, customers, internal processes, and learning and growth, and strategic activities are supported.
- d) The service quality and performance level are evaluated in comparison with the best practices within and outside the industry.

Q56. Which of the following is the appropriate description for a system migration plan?

- a) A system migration plan must describe the decision criteria for restoring the old system in case the migration fails.
- b) Operating the new system and the old system in parallel reduces the cost of migration.
- c) Sharing a part of the environment between the new system and the old system makes it easier to verify the migration status.
- d) The greater the amount of data to be migrated, the more appropriate it would be to migrate the data in a single batch immediately before the system is switched.

Q58. In the event of a disk failure, which of the following is a method for recovering a database by restoring a full backup data onto a disk from a tape, and then reflecting, from logs, post-update copies after the full backup was taken?

- a) Checkpoint restart
- b) Reboot
- c) Roll forward
- d) Rollback

Q56. Which of the following is the main purpose of a migration test for a system?

- a) To confirm that a new system possesses all of the required functions
- b) To confirm that sufficient performance can be derived from the new system using a copy of the actual data from the existing system
- c) To confirm the compatibility of the interface between a program of another existing system and a newly developed program
- d) To confirm the switch procedure from the existing system to the new system and the problems that the switch can cause from the perspective of reliability and efficiency

Q57. In IT service management, which of the following is handled by incident management?

- a) Inquiry regarding the function or usage of the IT service or system
- b) Long delay in an application response
- c) Request for providing the IT service to a new business site
- d) Request for training of recruits on the IT service

Q58. When the PDCA methodology is applied to a service management system, which of the following corresponds to Act?

- a) Establishing, documenting, and agreeing the service management system
- b) Implementing and operating the service management system for the design, transition, delivery, and improvement of services
- c) Monitoring, measuring, and reviewing the service management system and services against the policies, objectives, plans, and service requirements, and reporting the results
- d) Taking actions to continually improve the performance of the service management system and services

Q54. Which of the following is used in quality management to help determine whether a process is stable by using plotted time-series data and limit lines?

- a) Brainstorming
- b) Cause-and-effect diagram
- c) Control chart
- d) Run chart

Q55. Which of the following is an appropriate definition of the total cost of ownership (TCO) in the context of system cost?

- a) It is the total amount of expenses at the time of system installation.
- b) It is the total amount of expenses related to the development of business systems.
- c) It is the total amount of expenses, including those from system installation through operation and maintenance/management.
- d) It is the total amount of operation expenses for systems related to communications and networking.

Q56. In IT service management, which of the following is an activity that is performed for management of incidents and service requests?

- a) Evaluating if customer satisfaction with the service desk meets the agreed service targets and performing a review for identifying improvement opportunities
- b) Examining measures wherein the amount of free space on a disk is near its threshold
- c) Investigating the impact of changes made to a program
- d) Receiving a failure report from a user and checking to see if it corresponds to a known error

Q55. In ITIL, the reduction in the index value expressing maintainability is cited as an example of a key performance index (KPI) in availability management. Which of the following corresponds to such an index?

- a) Mean time between failures
- b) Mean time between service incidents
- c) Mean time to restore service
- d) Number of interruptions in a certain period of time

Q56. In service management, which of the following is a requirement of service level management?

- a) A capacity plan is created, implemented, and maintained while human, technical, informational, and financial resources are taken into consideration.
- b) A service catalog and SLA are created for the service to be provided, and they are agreed upon with the customer.
- c) Costs are monitored and reported against the budget; the financial forecasts are reviewed, and costs are managed.
- d) The risks to service continuity and availability of services are assessed and documented.

Q57. Which of the following is an effective means of protecting an information system from the damage from over-voltage that occurs because of a lightning strike?

- a) Connecting the communication cable and the computer through a surge protection device (SPD)
- b) Digitalizing the control circuit of electric power facilities
- c) Installing a private power generator
- d) Splitting the communication wire into two (2) systems that have different paths

Q57. In IT service management, which of the following is a problem management activity that is performed proactively?

- a) Analyzing the occurrence trend of incidents and proposing measures that prevent an incident from occurring in the future
- b) Classifying problems that have been detected and recorded, and setting the response priority
- c) Evaluating the effectiveness of a resolution to a critical problem
- d) Monitoring whether an incident occurs again or not for a certain period of time after the problem is resolved

Q58. Among the structures and the characteristics of a service desk organization, which of the following is a description of a local service desk?

- a) By locating a service desk near the users, it is possible to provide support for users who speak different languages or come from different cultures, and to provide support for VIPs by dedicated staff.
- b) By using communication technology, services can be provided as if they were provided from a single service desk, even when service staff are dispersed across multiple regions or departments.
- c) Service staff can efficiently be deployed, or a large number of calls can be handled by concentrating service desks at a single site or at limited locations.
- d) Well-controlled services can be provided by centrally integrating and managing all staff, including those at dispersed locations.

Q55. Which of the following is the most appropriate description concerning a backup method for data in a new system?

- a) In consideration of a possible increase in the response time in the business processes, the backup schedule is adjusted so that it does not overlap with the business processes.
- b) To save the backup data for a long period of time, a random-access medium is used.
- c) To shorten the time taken for recovery from the backup data, a differential backup is used.
- d) To shorten the time taken for the backup process, the backup data are placed in the same storage medium as the source data.

Q57. In ITIL, the reduction in the index value expressing the maintainability is cited as an example of a KPI (Key Performance Index) in availability management. Which of the following corresponds to such an index?

- a) Mean time between failures
- b) Mean time between service incidents
- c) Mean time to restore service
- d) Number of interruptions in a certain period

Q56. When the development department and operations department of a system are organized separately, which of the following is an appropriate method of smoothly and effectively proceeding with the design and migration of a new service that needs system development?

- a) After the completion of the operational test, the development department explains the system specifications and operation methods to the operations department.
- b) The development department conducts operational test, creates the operation manuals, and passes them over to the operations department.
- c) The operational test is conducted only by the operations department without the support of the development department.
- d) The operations department also participates actively in the extraction of requirements concerning the system operations.

Q57. In IT service management, which of the following is the most appropriate functional organization that provides a single point of contact and tries to provide rapid restoration of normal service operations to users?

- a) Service desk
- b) Service management
- c) Service provider
- d) Supplier

Q58. Which of the following is an effective means of protecting an information system from the damage of over-voltage that occurs because of a lightning strike?

- a) Connecting the communication cable and the computer through a surge protection device (SPD)
- b) Digitalizing the control circuit of electric power facilities
- c) Installing a private power generator
- d) Splitting the communication wire into two (2) systems that have different paths

Q55. According to the ITIL 2011 edition, which of the following is an appropriate stage of the service life cycle where a service provider builds and deploys new or modified services?

- a) Service design
- b) Service operation
- c) Service strategy
- d) Service transition

Q56. ISO/IEC 20000-1:2011 requires the application of the methodology known as “Plan-Do-Check-Act” (PDCA) to all parts of the Service Management System (SMS) and the services. Which of the following is an activity that is included as a plan in SMS?

- a) Conducting management reviews at planned intervals, and maintaining their records
- b) Creating a framework of authorities, responsibilities, and process roles
- c) Creating a plan for approved improvements, and implementing and reporting the improvements
- d) Implementing and operating SMS through allocation and management activities of funds and budgets

Q57. According to the ISO/IEC 20000-1:2011, which of the following is a control process that includes the identification, control, recording, tracking, reporting and verification of CI and the management of CI information in the CMDB?

- a) Capacity management
- b) Change management
- c) Configuration management
- d) Release and Deployment management

Q57. Which of the following device is used for protecting power supply circuits, communication devices, or other equipment from the overvoltage and the over current generated from the overvoltage?

- a) AVR b) CVCF c) SPD d) UPS

Q58. Which of the following is an appropriate precaution to be observed when monitoring the use of the capacity and performance of an online system in the capacity management process of IT service management?

- a) Incidents concerning capacity and performance are recorded.
- b) Multiple measurement items such as the response time and CPU utilization are monitored on a regular basis.
- c) Only the maximum value of performance data during a fixed period is focused upon, and deviation from the management limit is checked.
- d) Since the measurement of performance during online hours causes a decline in service level, measurement is performed during offline hours.

Q59. According to ITIL, which of the following is a description of a virtual service desk among the characteristics of a service desk organization?

- a) By using communication technology, services can be provided from a single service desk as observed by the user, even if the service desk staff members are distributed across multiple regions.
- b) Instead of deploying full-time service desk staff members, persons in charge of business operations such as research, development, sales, etc. manage concurrent posts.
- c) It exists either at the same or physically close location to the user base.
- d) With the purpose of improving cost effectiveness and communication efficiency, service desk staff members are stationed at a single or a few places.

Q56. According to the ISO/IEC 20000-1, which of the following is a service delivery process that the service provider shall agree the services to be delivered and shall agree a catalogue of services with the customer?

- a) Capacity management
- b) Information security management
- c) Service continuity and availability management
- d) Service level management

Q57. According to ITIL, which of the following is an activity or process in the Service Transition?

- a) Assessing the IT recovery options of the new IT infrastructure considering the business risks and cost to the project
- b) Classifying events once it is detected and communicating specific information to corresponding groups as an immediate action
- c) Defining the reliability and service life of the IT infrastructure considering projected growth in the service
- d) Implementing multiple strategies such as web seminars, newsletters, and visualization in transferring knowledge

Q58. Which of the following is an appropriate description of the relationship between a record of an incident and a record of a problem in IT service management?

- a) If known errors have been specified at the time of ending the record of the problem, the record of the incident that acts as the beginning of the record of the problem is deleted.
- b) One (1) record of a problem is always associated with one (1) record of an incident.
- c) Problems are classified and recorded by a different criterion from the classification of incidents.
- d) The cross-referenced information of the incident that acts as the beginning of the record of the problem is included in the record of the problem.

Q57. Among the structures and characteristics of a service desk organization, which of the following is a description of a local service desk?

- a) By consolidating the service desks at a single site or limited locations, service staff can be deployed effectively and a large number of calls can be handled.
- b) By deploying the service desk near the users, it is possible to provide services for users who have different languages and cultures or for VIPs by dedicated service staff.
- c) By performing centralized and integrated management of all service staff including those at the dispersed locations, well-controlled services can be provided.
- d) By using communication technology, services such as a single service desk can be provided, even if the service staff is dispersed across several regions and departments.

Q59. According to ISO/IEC 20000-1 (Information technology — Service management — Part 1: Service management system requirements), which of the following is an appropriate description of problem management?

- a) It is a process used to determine the effect of a change, assess its impact or priority, and then approve or reject it.
- b) It is a process used to identify the root cause of an incident, minimize the adverse impact of the incident, and prevent it from occurring again.
- c) It is a process used to provide a single point of contact between IT service users and the service provider.
- d) It is a process used to restore normal service operations as soon as possible to minimize the adverse impact of an incident.

Q60. Which of the following term indicates the amount of data transactions allowed to be lost after a downtime occurs?

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|-----------------------------------|-------------------------------------|
| a) Maximum Tolerable Outage (MTO) | b) Recovery Point Objective (RPO) |
| c) Recovery Time Objective (RTO) | d) Service Delivery Objective (SDO) |

Q61. In the Information Technology Infrastructure Library (ITIL), lowering an indicator that represents maintainability is given as an example of a key performance indicator (KPI) for availability management. Which of the following corresponds to this indicator?

- a) Mean time between failures
- b) Mean time between service incidents
- c) Mean time to restore services
- d) The number of interruptions within a fixed period

Q58. According to ISO/IEC 20000-1, which of the following is an activity in the PDCA of the Service Delivery Processes?

- a) Documenting supplier management, assigning a contact person and reviewing contracts regularly to meet requirements within SLA
- b) Establishing processes and procedures in handling customer complaints with escalation channels and feedback
- c) Evaluating the projected capacity and performance for service requests, new technologies, and upgrade procedures
- d) Recording changes and updates to existing service assets and configuration items while auditing is done to monitor unauthorized changes

Q59. According to ISO/IEC 20000-1, which of the following is the appropriate processes that contain change management, configuration management, and release and deployment management?

- a) Control processes
- b) Relationship processes
- c) Resolution processes
- d) Service delivery processes

Q60. Which of the following is a measure that enables an operator to surely recognize the occurrence of a system fault?

- a) To install monitoring cameras covering the entirety of the server room, and to monitor the room continuously
- b) To provide a function to perform a full backup of files at a fixed time every day
- c) To provide a function to perform a snapshot dump or memory dump in the event of a fault
- d) To provide functions to sound an alarm or light indicator lamps, linked to an alarm or other message sent to the system console

Q63. Which of the following is an appropriate explanation of BPO?

- a) Contracting out all business processes of a company's specific department, such as an administrative department or call center, to an external service provider, together with the operations of a business system
- b) Operating a system by renting part of the processing power and memory capacity of the server owned by a telecom carrier, etc., instead of taking possession of a company's own server
- c) Reducing the cost of software development by using a temporary staff agency's worker whose labor cost is lower than that of a company's regular employee
- d) Using software functions offered by an external service provider via a network, instead of taking possession of company's own software

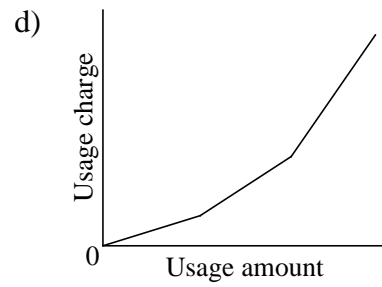
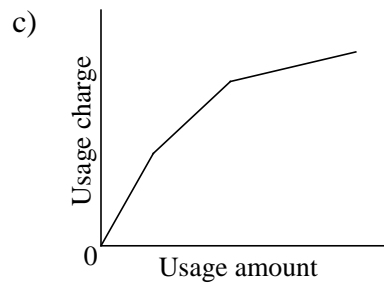
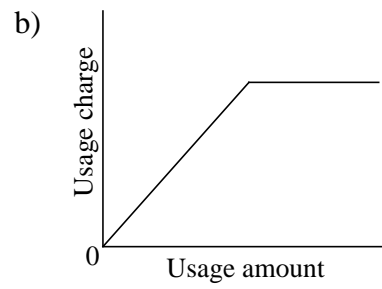
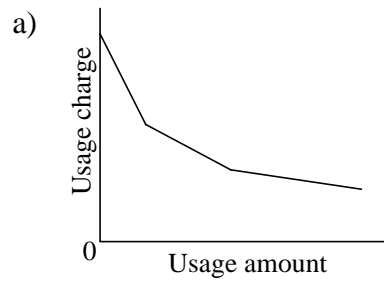
Q57. Which of the following is the most appropriate characteristic of the “big bang” migration method that is one of the system migration methods?

- a) Additional operational costs are incurred because of parallel operations.
- b) An additional application is required for connecting the old and new systems.
- c) The old and new systems operate in parallel, and migration to the new system is performed at a particular point of time.
- d) The problems that occur during migration to the new system have a big impact.

Q58. Which of the following is an explanation of a “known error” in IT service management?

- a) A new incident concerning which the service desk receives an inquiry
- b) A problem whose root cause is already identified or for which a workaround exists
- c) A program error detected during static inspection
- d) An inconsistency or insufficiency in service management planning

Q59. Which of the following is an appropriate graph that shows the usage charge of a computer system in an IT service based on the declining metered rate method?



Q45. Which of the following is the function that can be implemented with HTTPS?

- a) Detection of the falsification of a file on a Web server
- b) Intrusion detection for a client
- c) Server authentication with an electronic certificate
- d) Virus check on a client

Q57. Which of the following is an appropriate policy for creating an SLA?

- a) Setting a compensation as a penalty for every item that has a service level
- b) Setting a service level for every item that can be taken into consideration
- c) Setting a service level that is maintained into the future without any changes
- d) Setting a service level under the cost and needs of a service provider and its customers

Q58. Among the management functions for service support, which of the following has the objective that aims to restore agreed service to the business as soon as possible or to respond to service requests?

- a) Business relation management
- b) Change management
- c) Incident management
- d) Problem management

Q59. Which of the following is the most appropriate description concerning a backup method for data?

- a) In consideration of a possible response delay in business processing, a backup schedule is adjusted so that it does not overlap with business processing.
- b) In order to shorten the time necessary for a backup operation, backup data with a different file name is placed on the same storage medium.
- c) In order to shorten the time necessary for recovery from the backup data, differential backup is used.
- d) In order to store the backup data for a long period of time, a random access medium is used.

Q60. When software asset management is audited, which of the following is an appropriate point to be checked?

- a) Checking to see if compatibility with existing systems is evaluated at the time of installation
- b) Checking to see if evidence, such as a software license certificate, is properly filed and retained
- c) Checking to see if failures are properly localized through database partitioning or other methods
- d) Checking to see if the organizational and functional structure of the software provider is taken into consideration

Q60. Among the structures and characteristics of a service desk organization, which of the following is a description of a local service desk?

- a) By consolidating the service desks at a single site or a few locations, service staff members can be deployed effectively and a large number of calls can be handled.
- b) By locating the service desk near the users, it is possible to provide services for users who have different languages and cultures or for VIPs by dedicated staff members.
- c) By performing centralized and integrated management of the entire staff members including the service staff at distributed locations, well-controlled services can be provided.
- d) By using communication technology, services can be provided like a single service desk even if the service staff members are distributed across several regions and departments.

Q61. Four types of processes including service delivery process, relationship process, resolution process, and control process are defined in ISO/IEC 20000-1: 2011 (Information technology — Service management — Part 1: Service management system requirements). Which of the following is described as a service delivery process?

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|-----------------------------|------------------------------------|
| a) Configuration management | b) Information security management |
| c) Problem management | d) Supplier management |

Q62. Which of the following is an effective means of protecting an information system from the damage of over-voltage that is caused by a lightning strike?

- a) Connecting computers and cables through a surge protection device
- b) Digitalizing the control circuits of electric power facilities
- c) Installing a private power generator
- d) Providing two different communication paths

Q58. Which of the following is a characteristic of the one-time (or big bang) migration method that is one of the system migration methods?

- a) A problem during migration has a very large impact on the new system.
- b) Additional operational costs are incurred because of parallel operations.
- c) An application program is required to connect the new and old systems.
- d) Migration is planned after the short-term parallel use of the new and old systems.

Q59. Which of the following is the primary purpose of the problem management process that is defined by ITIL v3?

- a) To effectively and safely perform the change to an existing IT service or the installation of a new service as a solution to the incident
- b) To provide a single point of contact to the users and also to provide support for returning to the normal service with the minimum impact on business
- c) To recover an IT service suspended because of an incident within the agreed time period
- d) To trace and eliminate the root cause of an incident, and to prevent the recurrence of the incident

Q58. According to the ISO/IEC 20000 series, which of the following has the objective that aims to minimize disruption to the business by proactive identification and analysis of the cause of incidents and by managing problems to closure?

- a) Business relation management
- b) Change management
- c) Incident management
- d) Problem management

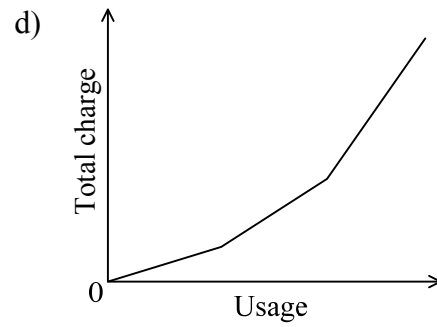
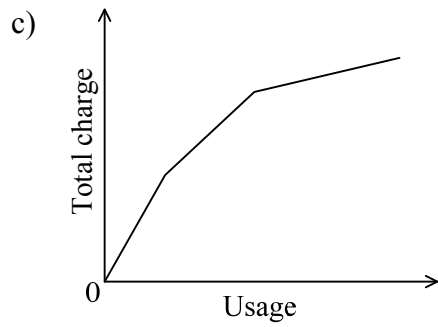
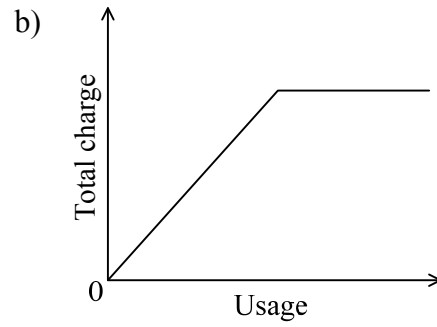
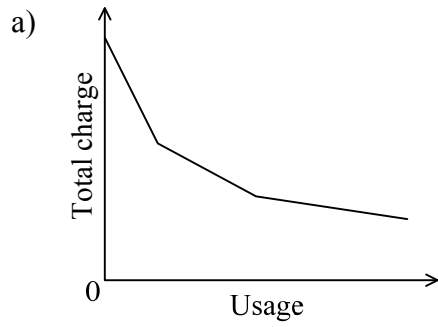
Q59. Which of the following is a service delivery process that is defined, agreed, recorded, and managed in IT service management?

- a) Quality management
- b) Risk management
- c) Schedule management
- d) Service level management

Q60. When there are several business systems available in a company, which of the following is the most appropriate method for access control?

- a) Based on the name list of the new employees, the registration of all users is performed beforehand in all business systems.
- b) In order to promptly respond to the change in the person in charge of a business operation, a common user ID is used for each business group.
- c) Irrespective of the user's job title, the appropriate access rights are set in each business system on the basis of the user's job role.
- d) When staff reassignment occurs frequently, the access rights are changed all at once at the beginning of the year.

Q60. When a declining metered rate method is applied to the total charge for usage of a computer system, the charge per unit of usage decreases as the system usage increases. Which of the following is a graph that shows this method?



Q61. Which of the following is an appropriate description concerning application maintenance?

- a) The completion of maintenance is recorded in order to prevent maintenance activities from being left unfinished.
- b) The maintenance activity is completed when the test is finished by the maintenance engineer in charge.
- c) The production library is directly updated when the change can be considered to be simple.
- d) The program after the successful completion of the test is promptly registered in the production library, and then its completion is reported to the maintenance approver.

Q62. Among the characteristics of the structure of a service desk organization, which of the following is a characteristic of the local service desk?

- a) By consolidating the service desks at a single site or a few locations, service staff members can be deployed effectively, and as a result, a large number of calls can be handled.
- b) By performing centralized and integrated management of all employees including the service staff members at the dispersed locations, well-controlled services can be provided.
- c) By placing the service desk close to users, intensive services are provided for users who have different languages and cultures or for VIPs by specialized service staff members.
- d) By using communication technology, services can be provided like a single service desk even if the service staff members are dispersed across several regions and departments.

Q58. According to ISO/IEC 20000 (Information technology – Service management), which of the following is a process that has the objective to define and control the components of the service and infrastructure and to maintain accurate information on such components?

- a) Change management
- b) Configuration management
- c) Incident management
- d) Release management

Q59. Which of the following is an appropriate description concerning data backup?

- a) A backup should always be made to the same storage media in order to minimize the amount of time required to make a backup.
- b) A backup should be made to a magnetic tape in order to enable random access when data is restored from the backup.
- c) A differential backup method should be used to minimize the amount of time required to perform a full restore from backups.
- d) Backup processing should not overlap with ordinary business processing in order to guarantee the integrity of backed-up data.

Q60. In IT service management, which of the following is an activity that is performed as incident management?

- a) Checking to see if a failure report from a user matches a known error
- b) Evaluating if customer satisfaction with the service desk meets the request level
- c) Investigating the effect of changes made to a program
- d) Reviewing measures when the amount of free space on a disk is near the threshold

Q59. According to ISO/IEC 20000-1:2011 (Information technology – Service management – Part 1: Service management system requirements), which of the following refers to an unplanned interruption to a service, a reduction in the quality of a service, or an event that has not yet impacted the service to the customer?

- a) Incident
- b) Known error
- c) Problem
- d) Request for change

Q57. The function that starts up a computer via a LAN is called WOL (Wake on LAN). Which of the following can be performed efficiently by using this function?

- a) Detection of a system malfunction
- b) Maintenance of a PC at a remote location
- c) Management of the traffic condition
- d) Monitoring of unauthorized access

Q59. Which of the following is the most appropriate description concerning the job roles of a database administrator and a data administrator?

- a) Creating an application from the external schema of the given database
- b) Designing a database, maintaining it, monitoring operations, and recovering from failures
- c) In database system development, allocating development staff and resources optimally, and managing them efficiently
- d) Inspecting at delivery whether the database application to be delivered meets the specifications such as functions, performance, and operability

Q60. Five processes and one function in ITIL v2, which are classified as service support indicating daily IT service operation methods, are summarized in the table below. Which of the following is the process to be entered in blank *A* in the table?

Type	Name	Description
Process	Incident management	For incidents which have occurred, restore normal service operations as soon as possible in order to minimize adverse effects on business.
	<i>A</i>	Identify the root causes of the incidents or problems, minimize their adverse effects on business, and prevent them from occurring again.
	Configuration management	Constantly have a correct understanding of CIs (Configuration Items) required to deliver IT services by using a configuration management database, and provide effective information for each process.
	Change management	For each RFC (Request For Change), determine the effect of modification, assess its impact or priority, and approve or reject it.
	Release management	Release approved components to the correct location at an appropriate time.
Function	Service desk	Act as a single point of contact between IT service users and the service provider.

- a) Availability management
- b) IT service continuity management
- c) Problem management
- d) Service level management

Q61. When security control of an information system is divided into three categories, including prevention, detection, and recovery, which of the following is applicable to recovery?

- a) Contingency plan
- b) Message authentication
- c) Segregation of duties between operators and programmers
- d) Use of password

Q64. Which of the following is an appropriate explanation of BPO?

- a) Contracting out all business processes of a company's specific department, such as an administrative department or call center, to an external service provider, together with the operations of a business system
- b) Operating a system by renting part of the processing power and memory capacity of the server owned by a telecom carrier, etc., instead of taking possession of a company's own server
- c) Reducing the cost of software development by using a temporary staff agency's worker whose labor cost is lower than that of a company's regular employee
- d) Using software functions offered by an external service provider via a network, instead of taking possession of company's own software

Q61. From a viewpoint of reliability of systems, which of the following is the appropriate timing for measuring the availability of a system?

- a) When failures begin to increase because of the aging of the system through long-term operations
- b) When system operations are started
- c) When the decision is made on whether or not to release the system
- d) When the problems found immediately after the start of system operations have been resolved and the system is becoming stable

Q62. When a company is notified of the necessity of upgrading the version for the server OS on which a database system and business application are running, which of the following is an appropriate decision on whether or not to upgrade the OS?

- a) The business application has been used for a long time, but the database system is relatively new. Therefore, the company upgrades the OS after checking the compatibility of the OS and the database.
- b) The company checks if the database system runs without problem in the new OS environment, and then checks the operation of the business application. If there is no problem, the company upgrades the OS.
- c) The database system uses the database management functions provided by the OS vendor, so there should be no problem. Therefore, the company upgrades the OS if there is no problem found by investigating the compatibility between the business application and the OS.
- d) The support services for the OS being in use are terminated soon after the new OS is released, so the company immediately upgrades the OS.

Q63. Which of the following is an effective measure to protect information systems from overvoltage caused by lightning?

- a) Connecting communication cables to computers via SPD (Surge Protection Device)
- b) Digitizing the control circuits of power supply facilities
- c) Preparing a private power generator
- d) Using two communication lines that pass through different routes

Q61. When the four roles, change control administrator, configuration administrator, maintenance administrator, and maintenance staff are defined in software maintenance organizations, which of the following persons should be primarily responsible for providing mechanisms for identifying, controlling, and tracking versions of software components?

- a) Change control administrator
- b) Configuration administrator
- c) Maintenance administrator
- d) Maintenance staff

Q63. Which of the following is the primary objective of conducting a system migration test?

- a) To confirm interface compatibility between existing programs and newly developed programs
- b) To confirm that a new system can provide sufficient performance, by using a copy of the current system's database
- c) To confirm that a new system satisfies all of the required functions
- d) To confirm the procedures for switching from an existing system to a new system as well as problems accompanied with this switching, from the viewpoints of security and efficiency

Q64. Among the functions provided by client management tools, which of the following is the most effective function for confirming that no software unrelated to the business operations is installed?

- a) Inventory collection
- b) Life cycle management
- c) Remote operation
- d) Software delivery

Q50. When there are multiple business application systems available, which of the following is the most appropriate method for access control?

- a) A common user ID is used for each application group in order to quickly respond to changes in the personnel in charge.
- b) All users are registered to all the business application systems beforehand, based on the list of new employees.
- c) Appropriate access permissions are granted for each business application system, irrespective of a user's position and authority.
- d) When staff reassignment occurs frequently, access permissions are changed all together at the beginning of the year.

Q51. Which of the following devices is used for the purpose of protecting systems against momentary power loss and supplying just enough power for systems to shut down at the time of power outages?

- a) AVR
- b) CVCF
- c) Private power generator
- d) UPS

- Q52.** The person in charge of operating a sales management system has decided to rearrange the customer master file records in cooperation with the system users in the sales department. Which of the following is an appropriate policy for rearranging the master file?
- a) Before deleting a customer record, it is necessary to first check that the customer code is not used anywhere within the sales management system and related systems.
 - b) Even if there are multiple records for the same customer, as long as the keys are different this is not a problem for sales data analysis, so the records can be left as is.
 - c) The records of customers who did not make purchases during the current month are to be physically deleted at the end of the month from the viewpoint of space efficiency.
 - d) The records of customers who made purchases during the current month are assumed to be correct, so these contents are not subject to checks.

Q56. IT services are provided under the conditions in the SLA shown below. What is the maximum number of hours of downtime in a month that can satisfy the SLA?

[Conditions in the SLA]

The number of business days per month is 30.

The service hours are from 7 AM to 11 PM on business days.

The agreed availability is 99% or more.

Maintenance time can be ignored.

- a) 1.2 b) 3.0 c) 4.8 d) 7.2

Q57. For servers, the total cost of ownership (TCO) is calculated over a period of 5 years. The purchase price of the servers is \$120,500 and the other annual costs are listed as below. What is the TCO of the servers (in dollars)?

Area of cost	Annual cost (\$)
Insurance	2,030
Maintenance	1,000
Repair (average)	700
Registration	270

a) 28,100

b) 120,500

c) 140,500

d) 622,500

Q55. An IT service is provided under the conditions that are described below. What is the maximum downtime in hours that can satisfy the SLA during a service time period of one (1) month? Here, the number of business days in one (1) month is 30, and no maintenance or other scheduled downtime of the service is performed during the service time period.

[Conditions of the SLA]

- The service time period is from 8:00 AM to 10:00 PM on business days.
- The availability should be 99.5% or more.

- a) 0.3 b) 2.1 c) 3.0 d) 3.6

Q56. IT services are provided under the following conditions in the SLA. What is the maximum number of hours of downtime in a month that can satisfy the SLA?

[Conditions of the SLA]

The number of business days per month is 30.

The service hours are from 7 AM to 11PM o'clock on a business day.

The required availability is 99% or more.

Other required time, such as maintenance time, can be ignored.

- a) 1.2 b) 3.0 c) 4.8 d) 7.2

Q57. An IT service is provided under the conditions described below. In order to meet the SLA, which of the following is the maximum allowable downtime (in hours) per month during service hours? Here, the number of business days in a month is 30, and there is no planned service outage for a reason of maintenance or something similar during the service hours.

[Conditions of the SLA]

- Service hours: 8 a.m. to 10 p.m. on business days
- Availability: 99.5% or more

a) 0.3

b) 2.1

c) 3.0

d) 3.6

Q60. An IT service is provided under the conditions described below. In order to meet the SLA, which of the following is the maximum allowable downtime (in hours) per month during service hours? Here, the number of business days in a month is 30.

[Conditions of the SLA]

- Service hours: 8 a.m. to 10 p.m. on business days
- Availability: 99.5% or more

- a) 1 b) 2 c) 3 d) 4

Q60. An IT service is provided under the conditions described below. In order to meet the SLA, the maximum allowable downtime should be less than how many hours during the service hours per month? Here, the number of business days in a month is 30.

[Conditions of the SLA]

- Service hours: 7 a.m. to 9 p.m. (i.e. 14 hours per day) on each business day
- Availability: 99.5% or more

- a) 1 b) 2 c) 3 d) 4