1 Foreword

This Exam Preparation book is intended for those preparing for the ITIL® V3 Foundation Exam.

The Art of Service is an Accredited Training Organization for this program and has been training this course for more than 8 years. The strategies and content in this book is a result of experience and understanding of the ITIL® Foundation Program, and the exam requirements.

This book is **not** a replacement for completing the course. This is a study aid to assist those who have completed an accredited course and preparing for the exam.

Do not underestimate the value of your own notes and study aids. The more you have, the more prepared you will be.

While it is not possible to pre-empt every question and content that MAY be asked in the Foundation exams, This Book covers the main concepts of IT Service Management, each phase and process in the Service Lifecycle and is followed by a Practice Exam (created by The Art of Service).

Each Process contains a summarized overview of key knowledge for the Foundation Exam. These overviews are designed to help you to reference the knowledge gained through the course.

Due to licensing rights, we are unable to provide actual APMG Exams. However, the study notes and sample exam questions in this book will allow you to more easily prepare for an APMG ITIL ® Foundation exam.

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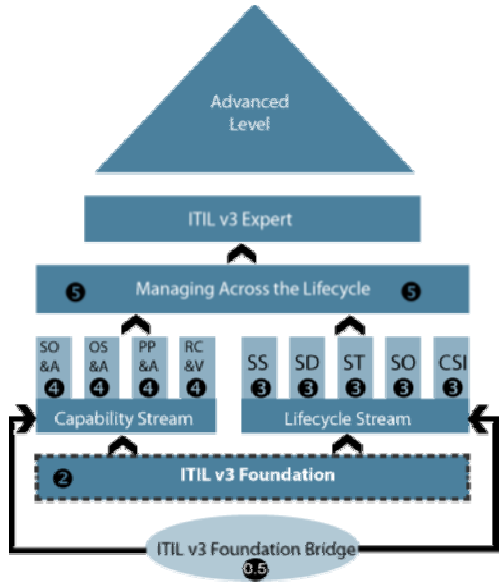
Executive Director
The Art of Service

2 Table of Contents

3 ITIL® v3 Certification Pathway

Since the launch of ITIL v3 in July 2007, a new certification path was also released. This new path encompasses all the new v3 Programs, ending in the possible attainment of "Expert Status". The figure below demonstrates the possible pathways that you could take to achieve the Expert status.



To achieve Expert status, you are required to gain a minimum of 22 points by completing various ITIL® v3 programs:

- You must complete the v3 Foundation Program (2 points)
- You must complete the Managing Across the Lifecycle Program (5 points)
- The remaining 15 points must come from The Intermediate Stream (Capability and Lifecycle Programs)

(The numbers on each program indicate the points value.)

It is yet to be finalized how the "Advanced Level" can be achieved, but is expected to be based on demonstration of practical experience in ITIL and IT Service Management.

4 Exam Specifics

The APMG ITIL® v3 Foundation exam is:

- Multiple choice exam
- 60 minutes in length
- 40 questions
- Pass mark is 26/40 or 65%
- Closed book exam
- Only 1 answer out of 4 possible answers is correct.

It is possible to do a paper based or a web based exam. (Please check with your Accredited Examination Centre for more information on this).

5 Exam Prerequisites

Accredited Foundation training is strongly recommended but not a prerequisite.

6 Exam Hints

As stated earlier – there are 40 multiple-choice questions, with 4 possible answers. APMG says that there are "no trick" questions. To an extent they are correct… **IF** you have done your study and understand the concepts you should get through the exam.

You need 26/40 to pass. If you break down the style of questions, generally 1/3 of the questions are straight content – memorizing… 1/3 tests your understanding of the concepts.
The remaining 1/3 of the questions are aimed much more at a synthesis/application level to really test your understanding. So, with a reasonable amount of study, you can pass the exam.

However to help you maximize your understanding of the exam process, these are some important hints that I have learnt and teach my students when preparing for the exam:

- The most obvious is "**read the question carefully**". They are very specific about the wording of the question and what it is they are wanting. Identify the key words and use this to select your answer.

- Plural schmural…. - **Ignore the singular or plural use of words**. Because the answer selections may contain answers which has 1 answer (eg Service Strategy), or more than 1 (eg SS, SD, ST). To maintain ambiguity so as not to "give the answer away" they will mix and match the singular/plural…… eg is/are, activity/activities

- 1,2,3,4….a,b,c,d… - More and more questions are appearing in the mock exams which seem to have the structure of consider the following (4) statements. Which are relevant/correct for the question. And the answer response will be for example – a) -1, b) 1,2,4 c) all the above …and so on. The strategy to answering these is to look at each statement, tick if you agree, X if you don't. I advise you physically mark these on the exam paper. Then match your selections to the answer.

- "Primary" – APMG likes to use this word. **The word "primary" implies that the answer will be just "one**" process, phase, whatever. It is unlikely that primary means that more than 1 process, phase will do "it".

- **"All…every"** - These 2 words seems to trip my participants more than any other. If you see a response/question which contains either of these 2 words, **you need to consider these to apply to….ALL/EVERY possible scenario**, and not just those related to the question. Eg - availability management is responsible for ALL targets in SLA… NO – because there are many more targets in an SLA than just availability targets… be careful!

- **Correct vs more Correct**…. – APMG likes to use the "which is correct…." type questions. When you see these, it is likely that there will be more than 1 answer that is correct… **you need to choose the "more/most correct".** Look for the "all-encompassing" answer. When you get down to 2 possible responses, try and identify which contains more, or conversely which might only be "part" right (might be activities of that process, but not all encompassing).

- If you are stuck – **leave it and go back** to the question at the end. You should have time.

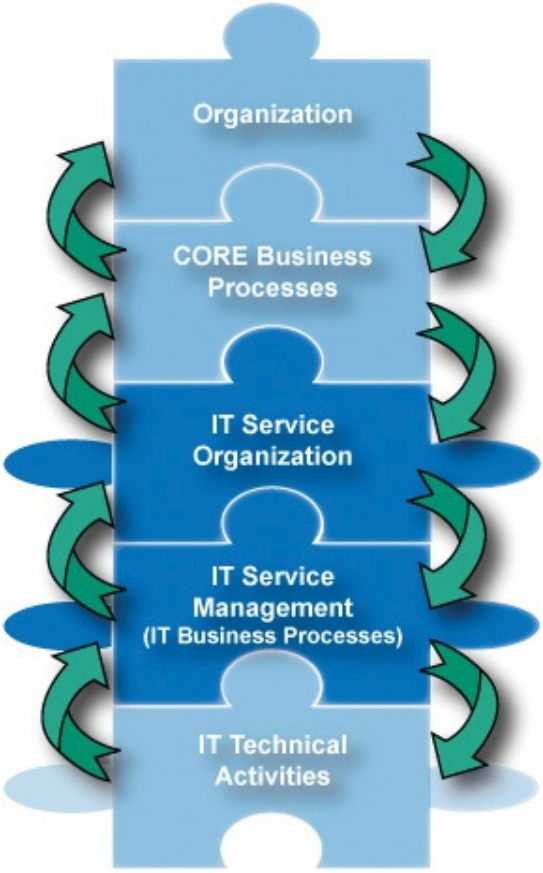
- "**Technology**" – if you have a question that asks what would technology help? **Everything (except wisdom)**!!!! – We are in IT. Therefore to help us deliver IT, technology should help us as much as possible…

- "**Tools**" – same as technology – Tools are there to make our job easier and to ensure consistency and repeatability as well as ensuring standards and conventions are followed – so it would make sense that Tools could help **all of the above**….

- Remember – at this level, the focus of the course and exam is an awareness level, with a basic understanding of the concepts and terminology of the ITIL v3 Service Lifecycle.

7 *The Art of Service Objective Tree*

This Objective Tree is a very useful tool for understanding and "tunneling" down into how ITSM can contribute to achieving a corporate objective. This helps us to better understand how the Service Lifecycle can contribute to achieving the Business objectives



The aim of the Objective tree is to walk down the tree to understand **HOW** each level of the organization is assisted in achieving their objective by receiving support from the level below.

Once you get to the bottom, you then walk back up the tree, giving example of **WHY** each would be of benefit to the one above in achieving its objectives.

ITIL contributes in the darker IT aspects in providing quality IT Service Management

8 Study Notes

The following Study notes are broken down into the following topics:

- Service Management as a concept and relevant terminology
- ITIL Service Lifecycle as a concept and relevant terminology
- Service Strategy Phase and relevant processes
- Service Design Phase and relevant processes
- Service Transition Phase and relevant processes
- Service Operation Phase and relevant functions and processes
- Continual Service Improvement Phase and relevant processes

Again these study notes are not intended to replace an accredited ITIL Foundation Program. These notes are supplementary and may not include EVERY concept that may be tested.

9 IT Service Management

9.1 Basic Concepts:

9.1.1 ITSM is the effective and efficient process driven management of quality IT Services. The added value to ITSM is that is business aligned and maintains a holistic Service Lifecycle approach.

9.1.2 Four Perspectives of ITSM (as found in Service Design Phase):

- People
- Partners
- Process
- Products

9.1.3 Process vs. Service

Process: a set of coordinated activities combining and implementing resources and capabilities in order to produce an outcome and ***provide value to customers or stakeholders***.

Characteristics of *every* process include:
•They are measurable,
•They deliver specific results
•They deliver outcomes to customers or stakeholders
•They respond to specific events (triggers)

Service: a means of delivering value to customers by facilitating outcomes customers want to achieve without the ownership of specific costs or risks.

A ***process owner*** is responsible for improvements and ensuring that the process is fit for the desired purpose. They are accountable for the outputs of that process.
Example*: The owner for the Availability Management Process*

A ***service owner*** is accountable for the delivery of a specific IT Service and is responsible for continual improvement and management of change affecting Services under their care.
Example*: The owner of the Payroll Service.*

The ***process*** owner and ***service*** owner are ***accountable*** for the process or service under their care. However they may not be responsible for performing many of the actual activities required for the process or service.

A **Process Manager** is responsible for the *operational (daily) management* of a process. There may be several Managers for the one process.

9.1.4 RACI Model

The RACI model helps show how a process actually does work end to end across several functional groups by defining roles and responsibilities, as well as organizational structure.

R – Responsibility (actually does the work for that activity but is responsible to the function or position that has an "A" against it.) eg Process manager
A – Accountability (is made accountable for ensuring that the action takes place, even if they might not do it themselves). eg Process Owner
C – Consult (advice / guidance / information can be gained from this function or position prior to the action taking place).
I – Inform (the function or position that is told about the event after it has happened).

General Rules
•Only 1 "A" per Row (ensures accountability, more than one "A" would confuse this)
•At least 1 "R" per Row (shows that actions are taking place)

9.1.5 Service Provider Types

- Internal Service Provider
- Shared Service Provider
- External Service Provider

9.1.6 **Roles**: There are many roles associated with ITIL processes. Each process should have a Process Manager eg Incident Manager. It is also reasonable for each Phase to have a Manager, eg Service Design Manager.

9.2 Key Terms:

IT Infrastructure: all the hardware, software, networks, facilities, services and support elements that are required to *develop, test, deliver, monitor, control* and *support* IT Services

ITSM: A set of specialized organizational capabilities for providing value to customers in the form of services.

Capabilities: The functions and processes utilized to manage services. Capabilities are intangible assets of an organization and cannot be purchased, but must be developed and matured over time.

Resources: A generic term that includes IT Infrastructure, people, money or anything else that might help to deliver an IT service. Resources are also considered to be tangible assets of an organization.

Good Practice: (also referred to as Best Practice) That which is successful in "**wide industry use**"

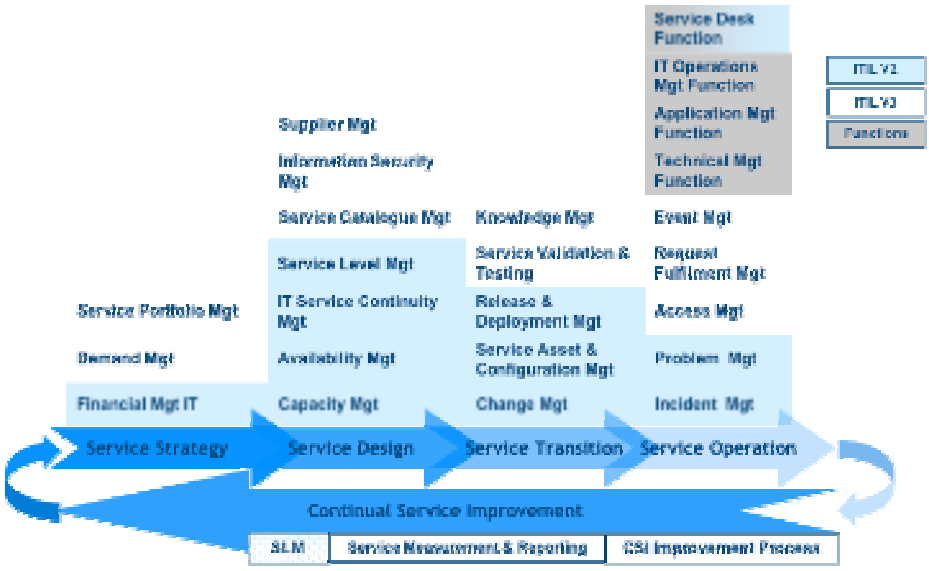
Functions: A team or group of ***people*** and the tools they use to carry out one or more Processes or Activities. Functions provide units of organization responsible for specific outcomes.

Customer: refers to the person who "pays" for the service, or has the authority to request a service

User: An organization's staff member/employee who "uses" the IT service

System: refers to a range of repositories for storing and accessing information – can include databases, Filing cabinets, storage cupboards etc

10 ITIL ® v3 Service Lifecycle



Version 3 maintains a holistic view covering the entire lifecycle of a service, no longer does ITIL just answer the how questions, but also ***why?***

•Why does a customer need this service?
•Why should the customer purchase services from us?
•Why should we provide (x) levels of availability, capacity and continuity?

By first asking these questions it enables a service provider to provide overall ***strategic objectives*** for the IT organization, which will then be used to direct *how* services are ***designed, transitioned, supported and improved*** in order to deliver maximum value to customers and stakeholders.

11 Service Strategy

Objective:

- Design, develop and implement **service management** as a strategic asset and assisting growth of the organization
- Define the strategic objectives of the IT organization

Basic Concepts:

Analogy

If suddenly, as a Chef, you woke up one day and decided to start your own business in your neighbourhood. The first thing you would do is identify what it is you do best (your style of cooking - Indian) and whether it is a financially viable idea. You would then identify if there is a need in your neighbourhood for such a restaurant. To do this you might identify if are there already too many Indian restaurants, who your clientele are (would an Indian restaurant be successful in a predominantly Chinese neighbourhood?) and so on. All before you begin to find location, decide menu etc. Service Strategy is just this – identifying your strengths and capabilities as well as understanding your clientele's needs, and ensuring there is alignment between the 2. As the old adage goes – no point selling ice to Eskimos….

11.1.1 Creating Service Value

Analogy

The official definition of a Service is *"a means of delivering value to Customers by facilitating outcomes customers want to achieve without the ownership of specific costs or risks".* Well what does this actually mean? To explain some of the key concepts I will use an analogy that most (food lovers) will understand.

While I do enjoy cooking, there are often times where I wish to enjoy quality food without the time and effort required to prepare a meal. If I was to cook, I would need to; go to a grocery store, buy the ingredients, take these ingredients home, prepare and cook the meal, set the table and of course clean up the kitchen afterwards. The

alternative of course, I can go to a restaurant that delivers a *service* that provides me with the same outcome (a nice meal) without the time, effort and general fuss if I was to cook it myself.

Now consider how I would identify the quality and value of that service being provided. It isn't just the quality of the food itself that will influence my perceptions but also:

- The cleanliness of the restaurant
- The friendliness and customer service skills of the waiters and other staff
- The ambience of the restaurant (lighting, music, decorations etc.)
- The time taken to receive my meal (and was it what I asked for?)
- Did they offer water on top of normal drinks and beverages?

If just one of these factors don't meet my expectations than ultimately the perceived quality and value being delivered to me as a customer are negatively impacted.

Utility + Warranty = Value

- Utility (fit for purpose) features and support of service
- Warranty (fit for use) – defines levels of availability, capacity, security, continuity

Service Packages

- Core Service Package
- Supporting Service Package
- Service Level Packages

11.1.2 Business Case

A decision support and planning tool that projects the likely consequences of a business action. A business case is a justification for a significant item of expenditure. Includes information about costs, benefits, options, issues, risks and possible problems.

12 Financial Management

As yet, we have not seen a question on Financial Management in any of the Mock exams, and students support this through feedback on the actual exams.

Please note that they do try and confuse you by making reference to costs etc in questions. When you see the word "costs", first think Financial Mgt and see if that applies to the question.

However – just in case….

Goal: To provide cost effective stewardship of the IT assets and the financial resources used in providing IT services.

12.1 Basic Concepts:

12.1.1 **Activities**:

Budgeting
IT Accounting
Charging

12.1.2 **Benefits of Financial Management**

- Enhanced decision making
- Increased speed of change
- Improved Service Portfolio Management
- Financial compliance and control
- Operational Control
- Value capture and creation
- Increased visibility
- Increased perception of IT

13 Service Portfolio Management

Goal: To assist the IT organization in managing investments in service management across the enterprise and maximizing them for value.

13.1 Basic Concepts:

13.1.1 A Service Portfolio describes provider's services in terms of business value. They include the complete set of services managed by a Service Provider.

These portfolios are used to articulate business needs and the provider's response to those needs, as well as prioritizing strengths, weaknesses and risks of you, the provider

13.1.2 Service Portfolio contains:

- Service Pipeline
- Service Catalogue
- Retired Services

13.1.3 Investment Categories

- Run the Business
- Grow the Business
- Transform the Business

13.2 Key Terms:

Service Pipeline: Proposed or in development

Service Catalog – live/operational or ready for deployment services

Retired Services – decommissioned services

14 Demand Management

Goal*:* To assist the IT Service Provider in understanding and influencing *Customer demand* for Services and the provision of *Capacity* to meet these demands in order to reduce excess capacity needs

14.1 Basic Concepts:

14.1.1 Demand Management is responsible for understanding and strategically responding to business demands for services by:

- Analyzing patterns of business activity and user profiles.
- Influence demand in line with the strategic objectives

14.1.2 Two ways to influence or manage demand:

- Physical/Technical constraints
- Financial constraints

14.2 Key terms:

(Specific for Demand Management that you might see on exam!!!!!)
PBA: Patterns of Business Activity
Influence user behaviour

15 Service Design

Objective: Convert strategic objectives into portfolios of services and service assets.

15.1 Basic Concepts:

15.1.1 Service Design's ultimate concern is the design of new or modified services for introduction into a production (live) environment.

Service Design is also concerned with the design of new and modified processes required to deliver and support these services.

15.1.2 Aspects of Service Design

- Service Solutions
- Service Management systems & tools
- Technology Architectures
- Processes
- Measurement Systems and Metrics

All to ensure that standards and conventions are followed

15.1.3 Service Design Packages

Defines all aspects of an IT Service and its requirements through each stage of its Lifecycle. A Service Design Package is produced for each new IT Service, major Change, or IT Service Retirement.

15.1.4 Typical Service Design Package contents:

•Business Requirements
•Service Applicability
•Service Contacts
•Service Functional Requirements
•Service Level Requirements
•Service Program
•Service Transition Plan
•Service Operational Plan
•Service Acceptance Criteria
•Service Design & Topology
•Organizational Readiness Assessment.

15.2 Key terms:

Service Solution: includes all of the functional requirements, resources and capabilities needed and agreed

16 Service Level Management

Goal*:* To ensure that the levels of IT service delivery are achieved, both for existing services and new services in accordance with the agreed targets.

16.1 Basic Concepts:

NOTE - AT **FOUNDATION** LEVEL, THE SLM IS THE PRIMARY CONTACT FOR CUSTOMERS.

16.1.1 Service Level Management is concerned with:

- Designing and planning the SLM process and Service Level Agreement (SLA) Structure.
- Determining the requirements of customers groups to produce Service Level Requirements (SLRs)
- Negotiating and Agreeing upon the relevant Service Level targets with customers to produce Service Level Agreements
- Negotiating and Agreeing upon the support elements required by the internal IT groups to produce Operational Level Agreements (internal) and with Supplier Mgt for External Suppliers and Underpinning Contracts (external).
- **Guarding** Agreements with customer
- Monitoring Service Levels
- Reporting to Customer

NOTE- All reports from all other processes should go to SLM who will report back to customer

16.1.2 SLA Structures:

- Service Based SLA
- Customer Based SLA
- Multi-level Based SLA
  - Corporate level
  - Customer level
  - Service level

16.1.3 Points to note:

- Agreements are INTERNAL
- Contracts are EXTERNAL
- You cannot have a “legal” contract/agreement with an internal department of you organization
- If they try and mix the terms up (and they will) – use the INTERNAL/EXTERNAL as key word.

16.2 Key Terms:

SLA: Service Level Agreement
OLA: Operational Level Agreement
UC: Underpinning Contract
SC: Service Catalog
SLR: Service Level Requirements
Service Improvement Plans (SIP): formal plans to implement improvements to a process or service.

Service Level Management works closely with Service Catalog Management and Supplier Management

17 Supplier Management

Goal*:* To manage suppliers and the services they supply, to provide seamless quality of IT service to the business and ensure that value for money is obtained.

17.1 Basic Concepts:

17.1.1 Types of Outsourcing Arrangements:

- **Outsourcing:** Using one or more external suppliers to manage or assist in managing IT Services.
- **Co-sourcing:** An informal combination of insourcing and outsourcing, using a number of outsourcing organizations working together to co-source key elements within the lifecycle.
- **Partnership or multi-sourcing:** Formal arrangements between two or more organizations to work together to design, develop, transition, maintain, operate, and/or support IT service(s). The focus here tends to be on strategic partnerships that leverage critical expertise or market opportunities.
- **Business Process Outsourcing:** Formal arrangements where an external organization provides and manages the other organization's entire business process(es) or functions(s) in a low cost location. Common examples are accounting, payroll and call centre operations.
- **Knowledge Process Outsourcing:** This is a **new enhancement** of Business Process Outsourcing, where external organizations provide domain based processes and business expertise rather than just process expertise and requires advanced analytical and specialized skills from the outsourcing organization.
- **Application Service Provision:** Where external organizations provide shared computer based services to customer organizations over a network. The complexities and costs of such shared software can be reduced and provided to organizations that could otherwise not justify the investment.

Supplier Management manages all aspects of External Suppliers involved in provision of IT Services from tender, to monitoring and reviewing performance and renewal/termination of contracts.

17.2 Key Terms:

SCD: Supplier Contract Database
SSIP: Supplier Service Improvement Plan
UC: Underpinning Contract

18 Service Catalog Management

Goal*:* To ensure that a Service Catalogue is produced, maintained and contains accurate information on all ***operational*** services and those ready for deployment.

18.1 Basic Concepts:

18.1.1 Creation and maintenance of Service Catalogue –which contains 2 parts:

- Business Service Catalogue
  - Plain English using clear and concise language
  - Customer facing document
- Technical Service Catalogue
  - Technical Language
  - Non Customer facing (designed for IT department use)

18.1.2 Works closely with Service Level Manager

18.1.3 Forms part of Service Portfolio

19 Capacity Management

Goal: The goal of the Capacity Management process is to ensure that cost-justifiable IT capacity in all areas of IT always exists and is matched to the current and future needs of the business, in a timely manner.

19.1 Basic Concepts:

19.1.1 The scope of Capacity Management encompasses operational and development environments including ALL:

- Hardware
- Software
- Peripherals
- Scheduling of HR, Staffing level, skill levels and capability levels are included in scope of Capacity Management.

19.1.2 Capacity Management is about finding the right balance between resources and capabilities, and demand.

19.1.3 Sub Processes of Capacity Management

- **Business Capacity Management:**
  - Manage Capacity to meet ***future business requirements*** for IT services
- **Service Capacity Management**
  - Focus on managing ***ongoing service performance*** as detailed in SLA or SLR
- **Component Capacity Management**
  - Identify and manage each of the ***components of the IT Infrastructure***

19.1.4 Activities:

1.**Performance Monitoring -** Measuring, monitoring, and tuning the performance of *IT Infrastructure components.*
2. **Demand Management -** Aims to influence the demand on capacity. This is the application of the policy laid out in the Service Strategy phase.
3. **Application Sizing -** Determining the hardware or network capacity to support new or modified applications and the predicted workload
4. **Modeling** - Used to forecast the behavior of the infrastructure under certain conditions
5. **Tuning** – Modifications made for better utilizations of current infrastructure
6. **Storage of Capacity Management Data**
7. **Capacity Planning**
8. **Reporting**

19.2 Key Terms:

CMIS: Capacity Management Information System

20 Availability Management

Goal*:* To ensure that the level of service availability delivered in all services is matched to or exceeds the current and future agreed needs of the business in a cost-effective manner.

20.1 Basic Concepts:

20.1.1 Concerned with availability of services and components – NOT PEOPLE.

20.1.2 Proactive and Reactive elements to Availability Management

20.2 Key Terms:

Availability: The ability of an IT Service or component to perform its ***required function*** at a stated instant or over a ***stated period*** of time.

AMIS: Availability Management Information System

Reliability: ***Freedom*** from operational failure.

Resilience: The ability to **withstand failure.**

Maintainability (internal): The ability of an IT component to be ***retained in or restored to***, an operational state.
- based on skills, knowledge, technology, backups, availability of staff.

Serviceability (external): The ***contractual obligation*** / arrangements made with ***3rd party external suppliers.*** Measured by Availability, Reliability and Maintainability of IT Service and components *under control of the external suppliers.*
- managed by Supplier Management in Service Design

Vital Business Function (VBF): The **business critical elements** of the business process supported by an IT Service.

MTRS: mean time to restore service – **Downtime**

MTBF: Mean time between failures – **Uptime**

21 IT Service Continuity Management

Goal: To support the overall *Business Continuity Management* by ensuring that the required IT infrastructure and the IT service provision can be recovered within required and agreed business time scales.

21.1 Basic Concepts:

21.1.1 Focuses on major disruptions

21.1.2 Recovery Options:

- Do nothing!
- Manual back-up
- Reciprocal agreement
- Gradual recovery (cold standby, $)
- Intermediate recovery (warm standby, $$)
- Fast recovery (hot standby, $$$)
- Immediate recovery (hot standby, $$$)

21.2 Key Terms:

Disaster: NOT part of ***daily operational activities*** and requires a ***separate system***.

BCM: Business Continuity Management; Strategies and actions to take place to continue Business Processes in the case of a disaster.

BIA: Business Impact Analysis- quantifies the impact loss of IT service would have on the business.

Risk Assessment: Evaluate ***Assets***, ***Threats*** and ***Vulnerabilities***.

Scope: The scope of IT Service Continuity Management considers all identified critical business processes and IT service(s) that underpin them.

Countermeasure: This term can be used to refer to any type of control and is most often used when referring to measures that increase resilience, fault tolerance or reliability of an IT Service.

22 Information Security Management

Goal*:* To align IT security with business security and ensure that information security is effectively managed in all service and IT Service Management activities.

22.1 Basic Concepts

22.1.1 Defines policies, standards and measures

22.1.2 **Scope**: - To ensure that the ***confidentiality***, ***integrity*** and ***availability*** (CIA) of an organization's assets, information, data and IT services is maintained.

22.1.3 Information Security Management must consider the following four perspectives to ensure that a balanced approach to security:

- Organizational
- Procedural
- Physical
- Technical

22.1.4 **Security Measures:**

- Prevention/Reduction
- Detection/Repression
- Correction/Recovery
- Evaluation

22.2 Key Terms:

Confidentiality: Protecting information against unauthorized access and use.

Integrity: Accuracy, completeness and timeliness of the information.

Availability: The information should be accessible at any agreed time. This depends on the continuity provided by the information processing systems.

Security Baseline: The security level adopted by the IT organization for its own security and from the point of view of good 'due diligence'.

Security Incident: Any incident that may interfere with achieving the SLA security requirements; materialization of a threat

23 Service Transition

Objective: The development and improvement of **capabilities** for transitioning new and changed services into operation.

23.1 Basic Concepts:

23.1.1 The focus here is developing the ability/capability for the IT Department to transition (build, test and release) ANY service in a consistent and repeatable way. This will enable IT department to effectively manage MANY changes/transitions. The **processes** contained within Service Transition have this responsibility.

23.1.2 The Service Design Manager would hand over the Service Design Package to the Service Transition Manager.

23.1.3 Service Transition should be involved early in the design of services

24 Knowledge Management

Goal: To enable organizations to improve the quality of management decision making by ensuring that reliable and secure information and data is available throughout the service lifecycle.

24.1 Basic Concept:

24.1.1 The primary purpose is to improve efficiency by reducing the need to rediscover knowledge. This requires accessible, quality and relevant data and information to be available to staff.

24.1.2 Data to Wisdom Graph:

Data – Information – Knowledge – Wisdom

24.1.3 Development of Service Knowledge Management System (SKMS)

- SKMS – contains:
  - CMS (Configuration Mgt System), which contains:
    - CMDB (Configuration Management Database)

25 Service Asset and Configuration Management

Goal: To support the agreed IT service provision by managing, controlling, storing and providing information about Configuration Items (CI's) and Service Assets throughout their life cycle.

EXAM HINT - LOOK FOR KEY WORDS SUCH AS "**LOGICAL MODEL**" AND "**MAINTAINING ACCURATE RECORDS**"

Analogy
When talking about Service Asset and Configuration Management, I often describe this role as a Librarian (Ethel) whose responsibility is to ensure that only authorized CIs are registered in the CMDB. Ethel does not care if it's a good idea or bad idea to have it in there, nor does she do any of the building of it. She will crawl under desks to make sure the CIs are still there and accurately recorded! SSHHHHH!!!!!

25.1 Basic Concepts:

25.1.1 Scope: The scope covers interfaces to internal and external service providers where there are assets and configuration items that need to be controlled e.g. shared assets.

25.1.2 Key activities:

- Management and Planning
- Identification
- Status Accounting
- Reporting
- Verification and Audit
- Control

25.2 Key Terms:

Configuration Item (CI): ***ANY*** component that supports an IT service

Attribute: ***Specific*** information about CI's.

CI Level: Recording and reporting of CI's at the level that the ***business requires***.

Status Accounting: Reporting of all ***current and historical*** data about each CI throughout its lifecycle.
Configuration Baseline: Configuration established at a specific point in time, captures both the structure and details of a configuration. Used as a reference point for later comparison.

26 Change Management

Goal: To ensure that **standardized methods and procedures** are used for efficient and prompt handling of all Changes, in order to **minimize the impact** of Change-related Incidents upon service quality, and consequently to improve the day-to-day operations of the organization.

26.1 Basic Concept:

26.1.1 Change Management is a "BIG OVERSEER" of all changes that may affect the quality of IT Services

26.1.2 Change Models:

- **NORMAL Change:** A change that follows all of the steps of the change process. It is assessed by either a Change Manager or Change Advisory Board.
- **STANDARD Change:** A pre-approved Change that is low risk, relatively common and follows a procedure or work instruction. E.g. password reset or provision of standard equipment to a new employee. RFC's are not required to implement a Standard Change, and they are logged and tracked using a different mechanism, such as a ***service request.***
- **EMERGENCY Change:** A change that must be introduced as soon as possible. E.g. to resolve a major incident or implement a security patch. The change management process will normally have a specific procedure for handling Emergency Changes.

26.1.3 Change Mgr chairs CAB, and other members, including **External Suppliers** when relevant and **advise** the Change Manager**. Change Mgr makes the final decision.**

26.1.4 **Assessing and Evaluating – "The 7 'R's" of Change Mgt** are questions that must be answered to correctly assess the impact of the change and to assist in making informed decisions.

26.2 Key Terms:

RFC: Request For Change:
Standard form to capture and process ALL Changes to any CI

Change Schedule:
Schedule of Approved Changes and the planned implementation dates.

PSO = Projected Service Outage:
A document that identifies the effect of planned changes, maintenance activities and test plans on agreed service levels.

CAB = Change Advisory Board:
Provide expert advice to Change Management, with representatives from Financial, IT background and customers

ECAB = Emergency CAB: Subgroup of CAB with authority to make urgent change decisions.

PIR: Post Implementation Review

27 Release and Deployment Management

Goal: To deploy releases into production and establish effective use of the service in order to deliver value to the customer and be able to handover to Service Operation.

27.1 Basic Concepts:

27.1.1 Responsible for Definitive Spares (DS) and Definitive Media Library (DML)

27.1.2 Responsible for building, testing and releasing new/changed service

27.1.3 Works closely with Change Management and Service Asset and Configuration Management

27.1.4 Accountable to ensure that training of new service to Service Desk and users occur.

27.1.5 Release Identification examples:

- Major Release
- Minor Release
- Emergency Fix

27.1.6 Types of Releases:

- Big Bang vs. Phased
- Push vs. Pull
- Manual vs. Automatic

27.2 Key Terms:

Release: A collection of **authorized** Changes to an IT Service. Also known as a Release Package

Release Unit: A Release Unit describes the portion of a service of IT infrastructure that is normally released together according to the organizations release policy. The unit may vary depending on type(s) or item(s) of service asset or service component such as hardware or software.

Definitive Media Library (DML): The secure library in which the definitive authorized versions of all media CIs are stored and protected. The DML should include definitive copies of purchased software (along with license documents or information) as well as software developed on site.

Definitive Spares: Physical storage of all ***spare IT components and assemblies maintained at the same level as those within the live environment***. These can then be used when needed for additional systems or in the recovery from Incidents.
Details recorded in the CMDB, controlled by Release Management.

Early Life Support: engaging the Development teams in the “early life” of a newly transitioned service to assist with initial support, incident management and rapid knowledge development.

28 Service Validation and Testing

Goal: To ensure that new or changed IT Services match the design specification and will meet the needs of the business.

28.1 Basic Concept:

28.1.1 Service V Model

- ***The Service V Model*** is used to provide a framework for organizing the levels of testing and validation required for new or changed services in order to ***justify release to the customer for trial and assessment.***
- The **left hand side** represents the specification of the service acceptance/review criteria, from high level functional requirements down to the detailed release and component criteria. Primarily developed in **Service Design Phase.**
- The **right hand side** focuses on the validation and test activities that are performed against the specifications defined on the left hand side, with direct involvement by the equivalent party on the right hand side (**Service Transition Phase**).
- It shows that validation and test planning should begin early in the life of a Service, initially with the definition of the service requirements. Each stage of the development is then correlated with associated testing and validation activities according to the defined test model to be used.

29 Service Operation

Objective:
To enable effectiveness and efficiency in delivery and support of IT services.

29.1 Basic Concepts:

29.1.1 Service Operation is where value is seen from the customer perspective

29.1.2 **Achieving The Balance** – "**balance**" is the key word here… look for that!!!

- Internal IT view vs. External Business View
- Stability vs. Responsiveness
- Quality of Service vs. Cost of Service
- Reactive vs. Proactive

30 Service Desk Function

Goal: To support the agreed IT service provision by ensuring the accessibility and availability of the IT-organization and by performing various supporting activities.

30.1 Basic Concept:

30.1.1 The Service Desk is meant to the **SINGLE POINT OF CONTACT** for users.

Remember – users call Service Desk… (if a question says "a customer calls a service desk" – think of them as a user)

Service Desk is 1st line of support

30.1.2 Service Desk Organizational Structures

- Local Service Desk
- Centralized Service Desk
- Virtual Service Desk
- Follow the sun

NOTE - a Help Desk is **NOT** a structure of a service desk!

30.1.3 Self Help – refers to any means where the user may assist themselves to seek support – eg:

- FAQ
- Intranet forms/requests
- Web based support
- Back end process handling software

"Calling Service Desk is **NOT** an example of Self Help!

30.1.4 Service Desk is a good opportunity for staff to develop skills and move into more technical roles.

30.2 Key Terms:

Incident: Any event which is not part of the standard operation of a service and which causes, or may cause an interruption to, or a reduction in the quality of that service. A failure of a CI that has not yet affected service is also classified as an incident.

Service Request: *Request for information* or *status of a service* (not related to loss of service) *Includes Standard Changes*. E.g. Contact details, Service availability, request for common software.

Request for Change: Request to Move, Add, Change (MAC)
E.g. Asking for changes to functionality of applications or supporting infrastructure – not a pre-approved change.

Access Rights: Providing User or user groups rights to use a service, and the prevention of access to non-authorized users. Effectively the execution of both Availability and Information Security management, in that it enables the organization to manage ***CIA*** of the organization's data and intellectual property.

31 Technical Management Function

Goal: Technical Management will provide guidance to IT Operations about how best to carry out the ongoing operational management of technology. This will partly be carried out during the Service Design phase but will be an everyday communication with IT Operations as they seek to achieve stability and optimum performance.

31.1 Basic Concepts:

31.1.1 Technical Management simply refers to the teams/departments of IT support and design staff that manage/support/build/test the Hardware side of IT:

- Custodian of technical knowledge and expertise related to managing the IT Infrastructure.
- Provides detailed technical skills and resources needed to support the ongoing operation of the IT Infrastructure
- Plays an important role in providing the actual resources to support the IT Service Management lifecycle.
- Ensures resources are effectively trained and deployed to design, build, transition, operate and improve the technology to deliver and support IT Services.

32 IT Operations Management Function

- **Goal:** To perform the daily operational activities needed to manage the IT Infrastructure. This is done according to the performance standards defined during Service Design.

32.1 Basic Concepts:

32.1.1 These are the teams that "watch over" the network on a daily basis to ensure that all is "running well" and doing the daily activities required to maintain the delivery and support of services.

Analogy
It's like Spock on Star Trek on the "Bridge" monitoring the "Dashboard" and alerting any inconsistencies to Kirk….

32.1.2 2 **Sub Functions**:

- **IT operations Control**
  - Doing the "Spock"
  - Think IT operations **Bridge** or Networks Operation Centre (NOC)
- **Facilities Management**
  - Management of the physical IT environment, usually data centers or computer rooms

33 Application Management Function

Goal: Support Business processes by designing and supporting Application software to assist with service delivery

33.1 Basic Concepts:

33.1.1

- Application Management is usually divided into departments based on the application portfolio of the organization allowing easier specialization and more focused support.
- Managing Applications throughout their lifecycle.
- Supports and maintains operational applications, and plays an important role in design, testing and improvement of applications that form part of IT Services.
- Support the organization's business processes by helping to identify functional and manageability requirements for application software.
- Assist in the design and deployment of those applications.
- Provide ongoing support and improvement of those applications.
- Identify skills required to support the applications
- Deciding whether to build or buy

34 Event Management

Goal: To enable stability in IT Services Delivery and Support by monitoring all events that occur throughout the IT infrastructure to allow for normal service operation and to detect and escalate exceptions.

34.1 Basic Concepts:

34.1.1 Event Management is about monitoring and escalating events which MAY HAVE SIGNIFICANCE FOR THE MANAGEMENT OF THE IT INFRASTRUCTURE.

34.1.2 **NOT** just exception events!

34.1.3 Examples:

- Disk reaching capacity
- Successful backup
- Backups failed
- Print Outputs

34.2 Key Terms:

Event: a change of state that has **significance for the management of a Configuration Item** (including IT Services). This can be detected by technical staff or be automated alerts or notifications created by CI monitoring tools.

Alert: A warning that a threshold has been reached or something has been changed. (An event has occurred)

Trigger: An indication that some action or response to an Event may be needed.

35 Incident Management

Goal: To restore normal service operation ***as quickly as possible*** and minimize the adverse impact on business operations, thus ensuring that the best possible levels of service quality and availability are maintained.

35.1 Basic Concepts:

35.1.1 Focus is on reducing business impact

35.1.2 Priority – Impact + Urgency

35.1.3 Escalation

- Functional (based on knowledge or expertise)
- Hierarchical (passing up due to timeliness or "VIP")

35.1.4 Responsible for 1st, 2nd and 3rd line support groups

35.1.5 Incident Mgt Activities order:

Identification, Logging, Categorisation, prioritisation, Initial Diagnosis, Functional Escalation, Investigation, Diagnosis, Resolution, Recovery, Closure

35.1.6 Major Incident:

- Shorter timescales
- Separate **Procedure**
- High Impact and Urgency
- Defined by business

35.2 Key Terms:

Incident: An unplanned interruption to an IT service **or** reduction in the quality of an IT service. Failure of a CI that has not yet affected service is also an incident.

Service Request: A request by a user for information, advice or for a standard change or for access to an IT service (NOT AN INCIDENT).

Incident Model: **pre-defined steps** for handling a particular type of incident that has been seen before.

36 Problem Management

Goal: To minimize the adverse impact of Incidents and Problems on the business that are **caused by errors** within the IT infrastructure, and to prevent the recurrence of Incidents related to these errors.

36.1 Basic Concepts:

36.1.1 Activities

- Reactive Problem Management
  - Detection/logging/investigation etc
- Proactive Problem Management
  - Trend analysis
  - Major Problem Reviews
  - Targeting Preventive action

36.1.2 One or more incidents with the same characteristics can become a problem.

36.2 Key Terms:

Problem: Unknown underlying cause of one or more Incidents (The investigation)

Known Error: Known underlying cause. Successful **diagnosis** of the root cause of a Problem, **and a workaround** or permanent solution has been identified

KEDB: Known Error Database

Workaround: A set of predefined steps to take as a means of reducing or eliminating the impact of an Incident or a Problem (e.g. restarting failed Configuration Item). Workarounds for Problems are documented with the Known Error records in the KEDB.

37 Request Fulfilment

Goal: To provide an effective and efficient channel for users to make requests, gain information and obtain standard Services.

37.1 Basic Concepts:

37.1.1 Carried out by the Service Desk Function, desktop support or other groups as required

37.2 Key Terms:

A Service Request is:

- A request for information or advice
- A request for a ***standard*** change
- A request for access to an IT Service
- **NOT** related to a loss of service (ie incident)
- **NOT a normal change**

38 Access Management

Goal: To **grant** authorized users the right to use a Service while **preventing** access to non-authorized users in order to protect the confidentiality, integrity and availability (CIA) of information and infrastructure.

38.1 Basic Concepts:

38.1.1 Relationship with other Processes:

Access Management is the execution of policies and actions defined in Information Security and Availability Management.

38.1.2 Activities:

Verification, providing rights, Monitoring identity status
Logging and Tracking access, Removing or restricting rights

39 Continual Service Improvement

Objective: To ensure continual improvements to IT Service Management Processes and IT Services.

39.1 Basic Concepts:

39.1.1 CSI provides guidance in creating and maintaining value for your customers through better design implementation and support of services.

NOTE – there are 3 models that you need to be able to memorize and discern in CSI – and they will test you on these. To help you – I will share my techniques I use with my students.

39.1.2 CSI Model:

- 6 steps (ok – this is corny – but think "six" **model**… "sexy" **model**… - to discern from "7 step improvement **process"**)
  - What is the vision? – business objectives
  - Where are we now? – baseline assessments
  - Where do we want to be? – Targets
  - How do we get there? – Process Improvement
  - Did we get there? – Measurements and metrics
  - How do we keep the momentum going (last step!!!!)

39.1.3 Deming Cycle (**remember** Deming….DO – "DD")

- **Plan** - Scope, requirements, objectives, Roles and Responsibilities
- **Do** - Funds, Policies, reports, managing, changing
- **Check** - Monitor against plans, survey, report
- **Act** Policy on improvement, assess, implement
- Never stops – cyclic as many times as required

40 Service Measurement and Reporting

Goal: To coordinate the design of metrics, data collection and reporting activities from the other processes and functions.

40.1 Basic Concepts:

40.1.1 There are four reasons why it is important to measure and report:

- To **validate** that we are supporting the strategy and vision.
- To **justify** actions/expenses/measures taken or applied.
- To **direct** resources (time & money) in the most appropriate way.
- To **intervene** when necessary. (e.g. to avoid breaching SLAs)

40.1.2 Types of Metrics:

- Technology Metrics
- Process Metrics
- Service Metrics

40.2 Key Terms:

Baseline: A benchmark used as a reference point for later comparison.

Technology Metrics: Often associated with component and application-based metrics such as performance, availability etc – System architects/designers

Process Metrics: Captured in the form of KPIs and activity metrics for the service management processes. They help to determine the overall health of a process. Four key questions KPIs can help answer are centered around quality, performance, value and compliance. CSI uses these metrics to identify improvement opportunities for each process. – Process Owner

Service Metrics: The results of the end-to-end service. Component metrics are use to calculate the service metrics. - SLM

41 Continual Service Improvement Process

(aka 7 Step Improvement Process)

Goal: To coordinate a structured approach for improvements to IT services and ITSM processes

41.1 Basic Concepts:

41.1.1 7 Step Improvement Process

- Define what we should measure
- Define what we can measure
- Gather data
- Process data
- Analyse data
- Present information
- Implement corrective action

NOTE – to help remember this – I recommend you memorize the first letters: "**DDG PAPI**". (I even sing these letters to "Old Macdonald had a farm") 7 letters – 7 steps… From here – you will be able to relate letters to the possible answers.

42 Practice Exam Questions

Due to licensing rights, we are unable to use official APMG ITIL Foundation Mock Exam questions. More Sample exams can be purchased from EXIN at www.exinbookshop.com

Question 1

After a Change has been implemented, an evaluation is performed. What is this evaluation called?

a) Forward Schedule of Changes (FSC)
b) Post Implementation Review (PIR)
c) Service Improvement Programme (SIP)
d) Service Level Requirement (SLR)

Question 2

Defining the value and objectives of IT Services is the primary concern of which of the following elements of the Service Lifecycle?

a) Service Strategy
b) Service Strategy and Continual Service Improvement
c) Service Strategy, Service Transition and Service Operation
d) Service Strategy, Service Design, Service Transition, Service Operation and Continual Service Improvement

Question 3

The main objective of Availability Management is?

a) To provide maximum availability for IT Services
b) To ensure that service availability matches or exceeds the agreed needs of the business
c) To ensure that all targets in Service Level Agreements (SLAs) for customers are continually delivered
d) To guarantee availability levels for services and components

Question 4

What does the Service V model represent?

a) The utility and performance requirements of new and changed services
b) The path to Service Delivery and Service Support for efficient and effective utilization of resources
c) A strategy for the successful completion of all IT changes
d) Levels of Configuration and testing required to deliver a Service Capability

Question 5

What is another term for Uptime?

a) Mean Time Between Failures (MTBF)
b) Mean Time to Restore Service (MTRS)
c) Mean Time Between System Incidents (MTBSI)
d) Relationship between MTBF and MTBSI

Question 6

What is the CORRECT order of the first four activities in the 7 Step Improvement Process?

a) Gather data, process data, analyse data and present data
b) What is the vision, where are we now, what do we want to be, how do we get there?
c) Define what you should measure, define what you can measure, gather data and process data
d) Plan, Do, Check, Act

Question 7

What is the main reason for establishing a baseline?

a) To standardise operation
b) For later comparison
c) For knowing the cost of services provided
d) For roles and responsibility to be clear

Question 8

Which aspect of Service Design is missing from the list below?
1. The design of services
2. The design of Service Management systems and tools
3. The design of technology architecture and management systems
4. The design of the measurement systems, methods and metrics to be used
5. ?

a) The design of Functions
b) The design of Service Level Agreements
c) The design of applications
d) The design of processes

Question 9

Which is the first activity of the Continual Service Improvement (CSI) model?

a) Assess the current business situation
b) Understand the vision of the business
c) Agree on priorities for improvement
d) Create and verify a plan

Question 10

Which ITIL process is involved in performing risk assessments and a business impact analysis to determine appropriate "countermeasures" to be implemented?

a) Availability Management
b) Problem Management
c) IT Service Continuity Management
d) Service Asset & Configuration Management

Question 11

Which of the following areas would technology help to support during the Service Transition phase of the lifecycle?

1. Automated workflow of ITIL processes
2. Measurement and reporting systems
3. Distribution and installation of patches
4. Performance testing of new and modified services

a) 1, 2 and 3 only
b) 1, 3 and 4 only
c) 2, 3 and 4 only
d) All of the above

Question 12

Which of the following BEST describes the purpose of Event Management?

a) To detect events, make sense of them and determine the appropriate control action
b) To monitor interactions and exceptions within the infrastructure
c) To monitor and control the activities of technical staff
d) To detect and escalate exceptions to normal service operation

Question 13

Which of the following are Service Portfolio components within the Service Lifecycle?

1. Requirements Portfolio
2. Service Pipeline
3. Configuration Management System
4. Service Catalogue

a) 1 and 3 only
b) 1, 2 and 4 only
c) 2, 3 and 4 only
d) All of the above

Question 14

Which of the following is NOT a step in the Continual Service Improvement (CSI) model?

a) What is the vision?
b) Did we get there?
c) Is there budget?
d) Where are we now?

Question 15

Which of the following statements about Supplier Management is INCORRECT?

a) Supplier Management ensures that suppliers meet business expectations
b) Supplier Management provides capabilities for seamless quality in IT services
c) Supplier Management negotiates internal and external agreements to support the delivery of services
d) Supplier Management should be involved in all stages of the service lifecycle, from Strategy through Design and Transition to Operations and Improvement

Question 16

"Warranty of a service" means which of the following?

a) The service is fit for purpose
b) Customers are assured of certain levels of availability, capacity, continuity and security
c) The service has been tested appropriately with no errors being found
d) All customers are given free support for the service for a stated period of time

Question 17

A Process owner is responsible for which of the following?

a) Purchasing tools to support the Process
b) Defining the targets that will be used to evaluate process performance
c) Ensuring that availability targets specified in SLAs are met
d) Carrying out all the activities defined in the Process

Question 18

Functions are best described as?

a) Self-Contained units of organizations
b) Inter-related activities with a defined goal or output
c) Closed loop control systems
d) A team of IT staff who provide a single point of contact for all user communication

Question 19

How do organizations use Resources and Capabilities in creating value?

a) They are used to create value in the form of network availability
b) They are used to create value in the form of goods and services
c) They are used to create value to the IT organization for Service Design
d) They are used to create value to the IT organization for Service Transition

Question 20

IT Service Management is best described as?

a) A set of specialized organizational capabilities for providing value to customers in the form of services.
b) The processes required to deliver and support services
c) The processes that enable efficient IT service delivery and support
d) A technically focused set of management practices for IT service delivery

Question 21

ITIL can be best described as?

a) A holistic, Service Lifecycle approach to ITSM based on international best practices
b) Repeatable and adaptable ITSM processes
c) An international standard for ITSM
d) The best way for an organization to improve its IT service delivery and support

Question 22

Processes can be described as?

a) Activities designed to make delivering IT Services more effective and efficient
b) People and the tools they use to carry out activities that gain revenue
c) Inter-related activities carried out for the purpose of creating value for customers or stakeholders
d) Capabilities used to reduce IT costs

Question 23

The ITIL V3 framework is best described as?

a) An Service Delivery Lifecycle
b) An IT Management Lifecycle
c) A Service Lifecycle
d) An Infrastructure Lifecycle

Question 24

What are the four perspectives(attributes) considered for IT Service Management?

a) Process, Partner, Product, People
b) Hardware, Software, Management, Process
c) Process, Product, Pricing, People
d) Technology, Process, Management, People

Question 25

Which of the following statements is ALWAYS CORRECT about 'good practice'?

a) It is a strict set of rules and practices to be complied with
b) It is something that is successful in wide industry use
c) It is used by the most profitable international organizations
d) It is always based on ITIL

Question 26

"If something cannot be measured, it should not be documented" is a principle that applies to which of the following?

a) The Glossary of Terms
b) A Service Level Agreement (SLA)
c) An Incident Management record
d) A Configuration Item (CI)

Question 27

Technical Management is NOT responsible for?

a) Maintenance of the technical Infrastructure
b) Documenting and maintaining the technical skills required to manage and support the IT Infrastructure
c) Defining the Operational Level Agreements for the various technical teams
d) Diagnosis of, and recovery from, technical failures

Question 28

The BEST definition of an event is?

a) An occurrence that is significant for the management of the IT Infrastructure or delivery of services
b) An occurrence where a capacity threshold has been exceeded and an agreed Service Level has already been impacted
c) A known system defect that causes low impact incidents
d) A planned meeting between Service Level Managers and customers

Question 29

The four stages of the Deming Cycle are?

a) Plan, Measure, Monitor, Report
b) Plan, Check, Re-Act, Implement
c) Plan, Do, Act, Audit
d) Plan, Do, Check, Act

Question 30

The goal of Service Asset and Configuration Management is to?

a) Account for all the financial assets of the organization
b) Provide a logical model of the IT infrastructure
c) Build service models to justify ITIL implementations
d) Provide capabilities for managing documents across the organization

Question 31

What is missing from the following Service Strategy processes?
Service Portfolio Management
Demand Management

a) Financial Management for IT Services
b) Service Level Management
c) Supplier Management
d) Information Security Management

Question 32

What is the difference between a Known Error and a Problem?

a) The underlying cause of a Known Error is known. The underlying cause of a Problem is not known
b) A Known Error involves an error in the IT infrastructure, A Problem does not involve such an error.
c) A Known Error always originates from an Incident. This is not always the case with a Problem
d) With a Problem, the relevant Configuration Items have been identified. This is not the case with a Known Error.

Question 33

Which ITIL process is responsible for drawing up a charging system?

a) Demand Management
b) Supplier Management
c) Financial Management for IT Services
d) Service Level Management.

Question 34

Which process reviews Operational Level Agreements (OLAs) on a regular basis?

a) Supplier Management.
b) Service Level Management
c) Technical Management
d) Contract Management

Question 35

Who is authorised to establish an agreement with the IT organisation for the purchase of IT Services?

a) the user
b) the Service Level Manager
c) the Chief Information Officer
d) the customer

Question 36

Why should monitoring and measuring be used when trying to improve services?

a) To validate, direct, justify and intervene.
b) To validate, measure, monitor and change
c) To validate, plan, act and improve
d) To validate, assign resources, purchase technology and train people

Question 37

There have been multiple incidents recorded by the Service Desk. It appears that the network is congested due to multiple connections. What kind of actions should the Service Desk analyst take in this instance?

a) They should ask the Capacity Manager to expand the capacity of the network
b) They should ask the Problem Manager to look into the problem right away
c) They should ask the Security Manager to check whether too many authorizations may have been issued.
d) They should ask the Service Level Manager to revise the Service Level Agreements (SLA) with a decreased availability target

Question 38

What is the best definition of an Incident Model?

a) A type of incident involving an authorized Configuration Item (CI)
b) The template used by Service Desk analysts to record incidents
c) A set of pre-defined steps to be followed when dealing with a known type of incident
d) An Incident that is easy is solved at first contact

Question 39

What is the name of the activity within the Capacity Management process whose purpose is to predict the future capacity requirements of new and changed services?

a) Application Sizing
b) Demand Management
c) Modeling
d) Tuning

Question 40

What is the RACI model used for?

a) Documenting the roles and relationships of stakeholders in a process or activity
b) Defining requirements for a new service or process
c) Analysing the business impact of an incident
d) Creating a balanced scorecard showing the overall status of Service Management

Question 41

What is the role of the Emergency Change Advisory Board (ECAB)?

a) To make sure the Change Manager responds urgently to emergency changes
b) To assist the Change Manager to implement urgent changes
c) To assist the Change Manager in evaluating emergency changes and to decide whether the change should be approved
d) To assist the Change Manager in rushing the emergency change process so that changes can occur quickly

Question 42

Which information does the "Financial Management for IT Services" process deliver to Service Level Management?

a) the cost of hiring new IT staff
b) The costs of the Financial Management system
c) The total costs Application Management
d) How much has been spent on IT services per client.#

Question 43

Which ITIL process ensures that the IT Services are restored as soon as possible in the case of a malfunction?

a) Change Management
b) Incident Management
c) Problem Management.
d) Service Level Management

Question 44

Which of the following are the three main types of metrics as defined in Continual Service Improvement (CSI)?

1. Process Metrics
2. User Metrics
3. Service Metrics
4. Technology Metrics
5. Customer Metrics

a) 1, 2 and 3
b) 2, 4 and 5
c) 1, 3 and 4
d) 1, 2 and 4

Question 45

A Service Catalogue should contain which of the following?

a) The Licence information of all software
b) Decommissioned Services
c) Proposed or in development Services
d) Details of all operational services

Question 46

A Service Level Package is best described as?

a) A definite level of utility and warranty associated with a service package
b) A description of customer requirements used to negotiate a Service Level Agreement
c) A description of the value that the customer wants and for which they are willing to pay
d) A document showing the Service Levels achieved during an agreed reporting period

Question 47

A Service owner is responsible for which of the following?

a) Recommending improvements to services under their care
b) Defining and documenting Service Requirements
c) Carrying out the activities needed to support a Service.
d) Reporting service levels back to the customer.

Question 48

Incident Management has a value to the business by?

a) Helping to minimize infrastructure cost of adding new technology.
b) Enabling users to resolve Problems
c) Finding permanent solutions to ineffective business processes
d) Contributing to the reduction of outages.

Question 49

Operations Control refers to?

a) The managers of the Event and Access Management Processes
b) Overseeing the monitoring and escalatng of IT operational events and activities
c) The tools used to monitor the status of the IT Network
d) The situation where the Service Desk manager is required to monitor the status of the infrastructure when Service Desk Operators are not available

Question 50

Which are the missing Service Operation processes from the following?
1. Incident Management
2. Problem Management
3. Event Management
4. ?
5. ?

a) Access Management and Request Fulfilment
b) Event Management and Service Desk.
c) Facilities Management and Event Management.
d) Change Management and Service Level Management.

Question 51

Which is correct:
1) CSI provides guidance on improving efficiency and effectiveness.
2) CSI provides guidance on improvements to services
3) CSI provides guidance on improvement of all phases except Service Strategy
4) CSI provides guidance on measurement of processes

a) 1 and 2 only
b) 2 only
c) 1, 2 and 4
d) All of the above

Question 52

Which of the following BEST describes a Workaround?

a) A Service Desk Operator uses a pre-defined technique to restore service as this Incident has been seen before
b) A second level support person uses trial and error to solve an Incident. One of them works, but does not know why
c) After reporting the problem to the Service Desk, the user works on another task while the problem is identified and resolved.
d) A service works now and then, thus allowing the user to continue working with interrupted levels of performance while the support person resolves the problem.

Question 53

Which of the following is a good use of a baseline?

a) The desired end state of a project
b) A marker or starting point for later comparison
c) The current desktop models in use.
d) The type of testing to be done for release

Question 54

Which of the following is a responsibility of Service Level Management?

a) Design the configuration management system from a business perspective
b) Create technology metrics to align with customer needs
c) Supporting the creation of a Business Service Catalogue
d) Train service desk on how to deal with customer complaints about service

Question 55

Which of the following is an activity of IT Service Continuity Management?

a) advising end users of a system failure.
b) documenting the fallback arrangements
c) reporting regarding availability.
d) guaranteeing that the Configuration Items are constantly kept up-to-date.

Question 56

Which of the following is NOT an example of a Service Request?

a) A user calls the Service Desk to order a toner cartridge
b) A user calls the Service Desk because they would like to change the functionality of an application.
c) A Manager submits a request for a new employee to be given access to an application
d) A user logs onto an internal web site to download a licensed copy of software from a list of approved options

Question 57

Which of the following statements are CORRECT about Functions?

1. They provide structure and stability to organizations
2. They are self-contained units with their own capabilities and resources
3. They rely on processes for cross-functional coordination
4. They are costlier to implement compared to processes

a) 1, 2 and 3 only
b) 1, 2 and 4 only.
c) All of the above.
d) None of the above#

Question 58

Which of the following statements CORRECTLY defines Outsourcing delivery model options?

a) Insourcing relies on internal resources; outsourcing relies on external organisation(s) resources
b) Insourcing relies on external organisation(s) resources; outsourcing relies on internal resources.
c) Insourcing relies on co-sourcing; outsourcing relies on partnerships
d) Insourcing relies on knowledge process outsourcing; outsourcing relies on application service provisioning.

Question 59

Which of the following statements is CORRECT?
1. Only one person can be responsible for an activity or
2. Only one person can be accountable for an activity.

a) All the above
b) 1 only
c) 2 only
d) None of the above

Question 60

Which of the following best describes the primary objective of Knowledge Management?

a) Auditing the configuration management system from a business perspective
b) Reducing the staffing requirements for the Service Desk and other support teams
c) To ensure reliable and secure information and data is available throughout the Service Lifecycle
d) To reduce the average Mean Time to Restore (MTTR) for incidents affecting Service availability

Question 61

Consider the following statements:
1. Service Transition provides guidance on transitioning new services into live environment
2. Service Transition provides guidance on releases
3. Service Transition provides guidance on the transfer of services to or from an external provider

Which of the above statements is CORRECT?

a) 1 and 2 only
b) 1 only
c) All of the above
d) 1 and 3 only

Question 62

Which activity in Service Asset & Configuration Management would help to ascertain which Configuration Items are undergoing maintenance at a particular moment in time?

a) control
b) verification and audit
c) identification.
d) status accounting

Question 63

In which ITIL process are negotiations held with the customer about the availability and capacity levels to be provided?

a) Availability Management
b) Capacity Management
c) Financial Management for IT Services
d) Service Level Management

Question 64

The following options are considered within which process?

1. Big bang vs Phased
2. Push and Pull
3. Automated vs Manual

a) Incident Management
b) Release and Deployment Management
c) Service Asset and Configuration Management
d) Service Catalogue Management

Question 65

The main benefit of using Service Design tools is?

a) To help ensure that design standards and conventions are followed
b) To help ensure that incidents are detected as quickly as possible
c) To help enable different CIs to work together
d) To help collate metrics used for improvement

Question 66

Which of the following are objectives of the Release and Deployment Management process?

1. To develop a release and deployment policy
2. To ensure that training occurs for new service to operations and support staff
3. To ensure that new services are tested prior to release
4. To provide cost justifiable IT availability that is matched to the needs of the business

a) 1, 2 and 3 only
b) All of the above
c) 1 and 3 only
d) 1, 3 and 4 only

Question 67

Which of the following benefits would be LEAST useful in supporting a business case for service improvement?

a) Reduced technology investment by 20% due to more accurate capacity and performance modelling processes
b) Reduced support manpower demand by 30% due to automated incident and problem management processes
c) Reduced level of customer complaints due to more effective Service Level Management
d) Reduced Problem resolution time by half due to improved knowledge management

Question 68

Which of the following BEST describes a Local Service Desk structure?

a) A Service Desk that also provides onsite technical support to its users
b) A Service Desk where analysts only speak one language
c) A Service Desk that is situated in the same location as the users it serves
d) A Service Desk that could be in any physical location but uses telecommunications and systems to make it appear that they are in the same location

Question 69

Which of the following is NOT one of the ITIL phases?

a) Service Organization
b) Service Transition
c) Service Design
d) Service Strategy

Question 70

Which of the following statements is CORRECT about patterns of demand generated by the customer's business?

a) They are driven by patterns of business activity
b) It is impossible to predict how they behave
c) It is impossible to influence demand patterns
d) They are driven by the delivery schedule generated by capacity management

Question 71

Which is NOT and objective of Service Design Phase?

a) Ensure that IT staff are trained and able to carry out building and testing of new service
b) Convert strategic objectives in portfolios of services and service assets
c) Ensure production and maintenance of Service Catalog
d) Ensure cost justifiable capacity of service is matched to business needs

Question 72

Demand Management is primarily used to:

a) Increase customer perception
b) Eliminate excess capacity needs
c) Increase the value of IT Services
d) Align business with IT needs

Question 73

Learning and improvement is the primary concern of which of the following elements of the Service Lifecycle?

a) Service Strategy, Service Design, Service Transition, Service Operation, and Continual Service Improvement
b) Service Strategy, Service Design, and Service Operation
c) Service Transition and Continual Service Improvement
d) Continual Service Improvement

Question 74

The Information Security Policy should be available to which groups of people?

a) Senior Account managers and all IT staff
b) Senior managers, IT executives and the Service Desk
c) All customers, users and IT staff
d) Information Security Management staff only

Question 75

The objective of Service Asset and Configuration Management is best described as?

a) To maximize the performance characteristics of Configuration Items (CIs) in
b) To manage CIs from an operational perspective
c) To ensure that assets and CIs deliver the business requirements they were designed to achieve
d) To define and control the components of services and infrastructure and maintain accurate configuration records

Question 76

The objective of the Change Management process is most accurately described as?

a) Ensuring that all changes are recorded, managed, tested and implemented in a controlled manner
b) Ensuring that emergency changes to IT infrastructure are managed efficiently and effectively
c) Ensuring that changes have appropriate rollback plans in the event of a major incident
d) Maximizing services by allowing changes to be made quickly

Question 77

Which of the following is NOT an objective of Service Operation?

a) Thorough testing, to ensure that services are designed to meet business needs
b) To deliver and support IT Services
c) To manage the technology used to deliver services
d) To monitor the performance of technology and processes

Question 78

Which of the following questions is NOT answered by Service Portfolio Management?

a) How should our resources and capabilities be allocated?
b) What are the pricing or chargeback models?
c) Why should a customer buy these services?
d) What are the support procedures for this service?

Question 79

Which of the following would NOT be stored in the Definitive Media Library (DML)?

a) Master copies of authorized software
b) Backups tapes of financial data
c) Software licences
d) Master copies of controlled documentation

Question 80

A major Incident:
1) Requires shorter timescales
2) requires a separate system
3) requires a separate procedure

Which of the above is true?
a) All of the above
b) 1 and 3 only
c) 1 and 2 only
d) 2 and 3 only

43 Answers

1. B	2. A	3. B	4. D
5. A	6. C	7. B	8. D
9. B	10. C	11. D	12. A
13. B	14. C	15. C	16. B
17. B	18. A	19. B	20. A
21. A	22. C	23. C	24. A
25. B	26. B	27. C	28. A
29. D	30. B	31. A	32. A
33. C	34. B	35. D	36. A
37. B	38. C	39. A	40. A
41. C	42. D	43. B	44. C
45. D	46. A	47. A	48. D
49. B	50. A	51. C	52. A
53. B	54. C	55. B	56. B
57. A	58. A	59. C	60. C
61. C	62. D	63. D	64. B
65. A	66. A	67. C	68. C
69. A	70. A	71. A	72. B
73. D	74. C	75. D	76. A
77. A	78. D	79. B	80. B

44 ACRONYMS

AM Availability Management

AMIS Availability Management Information System

BCM Business Capacity Management

BCP Business Continuity Plan

BIA Business Impact Analysis

CAB Change Advisory Board

ECAB Emergency Change Advisory Board

CFIA Component Failure Impact Analysis

CI Configuration Item

CMDB Configuration Management Database

CMIS Capacity Management Information System

CMS Configuration Management System

CSF Critical Success Factor

CSI Continual Service Improvement

CSIP Continual Service Improvement Program

CSP Core Service Package

DIKW Data-to-Information-to-Knowledge-to-Wisdom

DML Definitive Media Library

DS Definitive Spares

FTA Fault Tree Analysis

ISM Information Security Management

ISMS Information Security Management System

ITSCM IT Service Continuity Management

ITSM IT Service Management

IVR Interactive Voice Response

KEDB Known Error Database

KPI Key Performance Indicator

MoR Management of Risk

MTBF Mean Time Between Failures

MTBSI Mean Time Between Service Incidents

MTRS Mean Time to Restore Service

OGC Office of Government Commerce

OLA Operational Level Agreement

PBA Pattern of Business Activity

PIR Post Implementation Review

PSO Projected Service Outage

QA Quality Assurance

QMS Quality Management System

RFC Request for Change

ROI Return on Investment

SAC Service Acceptance Criteria

SACM Service Asset and Configuration Management

SCD Supplier and Contract Database

SIP Service Improvement Plan

SKMS Service Knowledge Management System

SLA Service Level Agreement

SLM Service Level Management

SLP Service Level Package

SLR Service Level Requirement

SPM Service Portfolio Management

SPOF Single Point of Failure

SSIP Supplier Service Improvement Plan

TCO Total Cost of Ownership

TQM Total Quality Management

UC Underpinning Contract

VBF Vital Business Function

VOI Value on Investment

45 Glossary

Alert: A warning that a threshold has been reached, something has changed, or a failure has occurred.

Asset: Any resource or capability.

Application Sizing: Determines the hardware or network capacity to support new or modified applications and the predicted workload.

Baselines: A benchmark used as a reference point for later comparison.

CMDB: Configuration Management Database

CMS: Configuration Management System

Configuration Item (CI): Any component that needs to be managed in order to deliver an IT Service.

DML: Definitive Media Library

Function: A team or group of people and the tools they use to carry out one or more processes or activities.

Incident: An unplanned interruption to, or reduction in the quality of an IT service

Known Error: A problem that has a documented Root Cause and a Workaround

KEDB: Known Error Database

Maintainability: A measure of how quickly and effectively a CI or IT service can be restored to normal after a failure.

Modeling: A technique used to predict the future behaviour of a system, process, CI etc

MTBF: Mean Time Between Failures (Uptime)

MTBSI: Mean Time Between Service Incidents

MTRS: Mean Time to Restore Service (Downtime)

OLA: Operational Level Agreement

Process: A structured set of activities designed to accomplish a specific objective.

Process Owner: Role responsible for ensuring that a process is fit for purpose.

Remediation: Recovery to a known state after a failed Change or Release

RFC: Request for Change

Service: A means of delivering value to Customers by facilitating Outcomes Customers want to achieve without the ownership of specific Costs and risks

Service Owner: Role that is accountable for the delivery of a specific IT service

SCD: Supplier and Contracts Database

Service Assets: Any capability or resource of a service provider

Serviceability: Measures Availability, Reliability, Maintainability of IT services/CI's under control of external suppliers.

SIP: Service Improvement Plan

SKMS: Service Knowledge Management System

SLA: Service Level Agreement

SLM: Service Level Manager

SLR: Service Level Requirements

SSIP: Supplier Service Improvement Plan

Status Accounting: Reporting of all current and historical data about each CI throughout its lifecycle.

Trigger An indication that some action or response to an event may be needed.

Tuning: Used to identify areas of the IT infrastructure that could be better utilized.

UC: Underpinning Contract

Utility: Functionality offered by a product or service to meet a particular need. Often summarized as 'what it does'.

VBF: Vital Business Function

Warranty: A promise or guarantee that a product or service will meet its agreed requirements.

46 References

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