



Project Planning & Control™



Syllabus *October 2015*

1 Introduction

The Project Planning & Control guidance provides advice, based on the APM approach, on the roles of Planning and Project Control Managers and Engineers.

The Project Planning & Control qualification is currently offered at two levels: Foundation and Practitioner.

This syllabus covers both the Foundation and Practitioner levels of examination. It is based on The APM Planning, Scheduling, Monitoring and Control publication 2015 (ISBN: 978-1-903494-44-8).

The primary purpose of the syllabus is to provide a basis for accreditation of people in Project Planning & Control. It documents the learning outcomes related to the roles of Planning and Project Control Managers and Engineers and describes the requirements a candidate is expected to meet to demonstrate that these learning outcomes have been achieved at each qualification level.

The target audience for this document is:

- Examination Board
- Examination Panel
- APMG Assessment Team
- Accredited Training Organizations.

This syllabus informs the design of the exams and provides accredited training organizations with a more detailed breakdown of what the exams will assess. Details on the exam structure and content are documented in the Project Planning & Control Foundation and Practitioner Examination Designs.

2 Foundation Qualification

2.1 Purpose of the Foundation Qualification

The Foundation-level qualification aims to measure whether the candidate has sufficient knowledge and understanding of the Project Planning & Control guidance to be able to act as an informed member of a Project Support Office or Project Planning and Control team. The Foundation qualification is also a pre-requisite for the Practitioner qualification.

2.2 Target Audience

This qualification is primarily aimed at:

- Planning Managers & Engineers
- Project Control Managers & Engineers

A secondary audience will be:

- Cost Engineers
- Project Managers

2.3 High Level Performance Definition of a Successful Foundation Candidate

The candidate should understand the key principles and terminology within the Project Planning & Control guidance. Specifically the candidate should understand:

- The approaches and products used to gain a clear definition of a project
- The approaches and techniques used to plan and close a project
- The selection and use of appropriate scheduling techniques
- The practices used for rigorous monitoring to enable proactive control of the project
- The basis for good record keeping, which also facilitates the virtuous feedback and learning cycle.

3 Practitioner Qualification

3.1 Purpose of the Practitioner Qualification

The purpose of the Practitioner qualification is to confirm whether the candidate has achieved sufficient understanding of the theory and application of the tools and techniques to allow them to work successfully in a Project Support team environment.

They should be capable of applying and assessing the tools and techniques independently but will have a team around them and advice and support available as required.

A successful Practitioner candidate should, with suitable direction, be able to start applying the method to a real project but may not be sufficiently skilled to do this appropriately for all situations.

3.2 Target Audience

The target audience is the same as for the Foundation level. However, it is recommended that a Practitioner candidate has a minimum of 3 years' experience in a planning and monitoring role.

3.3 High Level Performance Definition of a Successful Practitioner Candidate

The candidate should understand the key techniques, principles and terminology within Project Planning & Control.

Specifically the candidate should be able to use, interpret or assess:

- The approaches and key products used to gain a clear definition of a project
- The approaches and techniques used to plan and close a project
- The scheduling techniques and appropriate presentation of the outputs
- The management of risk in the planning, execution and evaluation of a project
- The practices and data used for rigorous monitoring to enable proactive control of the project.

4 Assessment Model

Each learning outcome in the High Level Performance Definition requires the candidate to demonstrate specific knowledge and skills. For each learning outcome a number of learning outcome measures are identified which are evaluated in the examination, in accordance with the Examination Design, to confirm that the learning outcome has been achieved. These learning outcome measures are shown as syllabus topics and define the scope of the standard required to achieve the qualification.

A classification widely used when designing assessments for certification and education is the Bloom's Taxonomy of Educational Objectives. This classifies learning objectives into six ascending learning levels, each defining a higher degree of competencies and skills. (Bloom et al, 1956, Taxonomy of Educational Objectives).

APMG have incorporated this into a Learning Outcomes Assessment Model that is then used to develop each qualification's Learning Outcome Assessment Model. The model provides a simple and systematic means for assessing and classifying the learning outcome measures.

This structured approach helps to ensure:

- The appropriate level is identified for a qualification
- A clear delineation in learning level content between different qualifications
- Wording is standardized and syllabi are presented consistently across APMG's qualification portfolio
- Exam questions and papers are consistent in their design.

The Foundation qualification examines at levels 1 (recall) and 2 (understand). The Practitioner qualification tests at levels 2 (understand), 3 (apply) and 4 (analyse).

Project Planning & Control Learning Outcomes Assessment Model				
	1. Recall	2. Understand	3. Apply	4. Analyse
APMG Learning Level Definition	<i>remember previously learned information</i>	<i>grasp the meaning and make sense of information</i>	<i>use information to perform a skill or task</i>	<i>identify whether information has been used appropriately according to the rules and guidance</i>
Generic APMG Headers <i>For introducing the learning outcome measures (topics) in the Syllabus</i>	Recall terms and key facts about concepts, principles and procedures from the reference material	Understand key facts, concepts, principles and procedures from the reference material	Apply key facts, concepts, principles and procedures to a given scenario	Differentiate between appropriate and inappropriate use of the reference material in a given scenario
Project Planning & Control Learning Outcome Assessment Model	Recall terms and key facts about concepts and methods related to the syllabus area	Understand the key concepts, steps, products, and techniques related to the syllabus area	Apply appropriate planning and control practices and techniques relating to the syllabus area to a given scenario	Differentiate between appropriate and inappropriate use of the techniques and methods for project planning and control within the context of a given scenario situation

5 Qualification Scope

The definition of scope for each qualification is presented in the syllabus tables at the end of this document. Each syllabus area is a unit of learning that relates to the reference material or training course module.

The following syllabus areas are identified.

Syllabus Area Code	Syllabus Area Title
DE	Definition
PL	Planning
SC	Scheduling
MC	Monitor & Control

6 Syllabus Presentation

For each syllabus area the learning outcome measures are presented in order of learning level and are introduced by a standard header. There is only one header at each learning level for each syllabus area. The wording in this header is derived from the Assessment Model. Each measure is specific to a learning level.

The scope of each examination is shown by a tick in the respective column to the right of the topic description.

Practitioner qualification requirements are a summation of the Foundation and Practitioner learning outcome measures. All Foundation level requirements are required for Practitioner level but are assumed to have been met and are not directly assessed again, although Foundation level knowledge and understanding will be used when demonstrating Practitioner application and analysis learning outcomes.

Each of the syllabus areas is presented in a similar format as follows:

Syllabus Area Code DE [2]		Syllabus Area : <i>Project Planning & Control Syllabus Area Definition</i> [1]	Foundation	Practitioner	Primary References
Level	Topic				
Know facts, terms and concepts relating to the Definition of a project. [3] Specifically to recall the:					
01 [4]	01 [5]	Definition of key Definition concepts: [6] 1. Business case 2. Scope management 3. Requirements management 4. Stakeholder management	✓ [7]		2.1, 3, 3.1, 4.1 & 5.1 [8]
01	02				

Key to the Syllabus Area table

- | | | |
|---|--|---|
| 1 | Syllabus Area | Unit of learning, e.g. course module, key activity area or section of the reference guide. |
| 2 | Syllabus Area Code | A unique 2 character code identifying the syllabus area. |
| 3 | Learning Level Header | Header introducing the syllabus topics (<i>learning outcome measures</i>) for a given learning level. |
| 4 | Level | Learning level of the learning outcome measure. |
| 5 | Topic Reference | Number of the topic within the learning level. |
| 6 | Topic Description
(<i>Learning Outcome Measure</i>) | Precise and specific description of what is required of the candidate to demonstrate that a learning outcome has been achieved. |

7	Foundation/Practitioner	Shows at which qualification level the topic is assessed . Note: A measure is only applied at one qualification level.
8	Primary Reference	The main reference supporting the learning outcome measure.

7 Important Points

The following points about the use of the syllabus should be noted.

7.1 Project Planning & Control Guide References

The Project Planning & Control guide references provided should be considered to be indicative rather than comprehensive, i.e. there may be other valid references within the guidance.

8 Syllabus Exclusions

The following areas are not examined at any level:

- Chapter 1 – Overview
- Chapter 6 – Project familiarisation
- Chapter 10 – Health, safety and environmental
- Chapter 19 – BIM (Building information modelling)
- Chapter 20 – Agile

(Also from Chapter 16 (Building the Schedule), the Arrow Diagram method is excluded).

Outline purposes and scope of the following areas are included but in depth knowledge is not examined at any level apart from the three chapters indicated which are examined in more depth at Practitioner:

- Chapter 2 – Business case
- Chapter 3 – Scope management
- Chapter 4 – Requirements management
- Chapter 5 – Stakeholder management
- Chapter 25 – Change management*
- Chapter 26 – Risk management*
- Chapter 27 – Forensic analysis*
- Chapter 28 – Record keeping
- Chapter 29 – Document management
- Chapter 30 – Handover and closeout
- Chapter 31 – Lessons learned

* Examined in more depth at Practitioner level only

Syllabus Area Code DE		Syllabus Area : <i>Project Planning & Control Syllabus Area: Definition</i>	Foundation	Practitioner	Primary Manual Reference
Level	Topic				
		Know facts, terms and concepts relating to the Definition of a project. Specifically to recall the:			
01	01	Definition of key Definition concepts: 1. Business case 2. Scope management 3. Requirements management 4. Stakeholder management	✓		2.1, 3, 3.1, 4.1 & 5.1
01	02	Types of hierarchical breakdown structures, together with their definitions: 1. Product Breakdown Structure (PBS) 2. Work Breakdown Structure (WBS) 3. Organisation Breakdown Structure (OBS) 4. Responsibility Assignment Matrix (RAM) 5. Cost Breakdown Structure (CBS) 6. Resource Breakdown Structure (RBS)	✓		8.1, 8.4.2, 8.5.1, 8.5.5, 8.6.1, 8.7.1, 8.9.1, 8.10.1
		Understand key concepts relating to the Definition of a project. Specifically to identify the:			
02	01	Purpose of a business case	✓		2.2
02	02	Purpose of: 1. Scope management 2. Requirements management 3. Stakeholder management	✓		3.2, 4.2 & 5.2
02	03	Purpose and composition of: 1. Works Information (WI) 2. Statement of Work (SOW)	✓		4.5 & 4.6
		Be able to apply key concepts relating to the Definition of a project within a given scenario. Specifically to:			
Level	Topic				
03	01	Identify appropriate project information for inclusion in the following: 1. Works Information (WI) 2. Statement of Work (SOW)		✓	4.5, 4.6, 8.5.2
03	02	Identify the key elements needed for good project planning, scheduling, monitoring and control, including the business case, and the management of scope, requirements and stakeholders.		✓	2.1, 3, 3.1, 4.1 & 5.1
		Be able to identify, analyse and distinguish between the appropriate and inappropriate use of key concepts relating to the Definition of a project within a given project scenario. Specifically to analyse:			
04	01	Whether the following are fit for purpose, with reasons: 1. Works Information (WI) 2. Statement of Work (SOW)		✓	4.5, 4.6, 8.5.2

Syllabus Area Code DE		Syllabus Area : <i>Project Planning & Control Syllabus Area: Definition</i>	Foundation	Practitioner	Primary Manual Reference
04	02	Whether the key elements needed for good project planning, scheduling, monitoring and control, including the business case, and the management of scope, requirements and stakeholders are implemented, with reasons		✓	2.1, 3, 3.1, 4.1 & 5.1

Syllabus Area Code PL		Syllabus Area : <i>Project Planning & Control Syllabus Area: Planning</i>	Foundation	Practitioner	Primary Manual Reference
Level	Topic				
		Know facts, terms and concepts relating to the Planning of a project. Specifically to recall the:			
01	01	Definition and outputs of planning	✓		7.1 & 7.1.1
01	02	Names and descriptions of the principal scheduling components	✓		7.4
01	03	Definition of key planning terms: 1. Dependency management 2. Cost estimating 3. Budgeting	✓		9.1, 11.1, 12.1
01	04	Definition of key handover and closeout terms: 1. Handover 2. Project Closeout	✓		30.1.1, 30.2.1
		Understand key concepts relating to the Planning of a project. Specifically to identify the:			
02	01	Purpose and benefits of planning together with considerations for successful planning	✓		7.2, 7.2.1, 7.2.2
02	02	Differences between: 1. Planning and scheduling 2. Funding and budgets	✓		7.3, 12.3
02	03	Characteristics and features of the following approaches to planning: 1. Top-down planning 2. Bottom-up planning 3. Rolling-wave planning Together with the factors that may influence an adopted strategy	✓		7.5 to 7.7
02	04	Purpose, characteristics and use of breakdown structures: 1. Product Breakdown Structure (PBS) 2. Work Breakdown Structure (WBS) 3. Organisation Breakdown Structure (OBS) 4. Responsibility Assignment Matrix (RAM) 5. Cost Breakdown Structure (CBS) 6. Resource Breakdown Structure (RBS) Together with the relationships (between them)	✓		8.2, 8.4.2, 8.4.3, 8.5.1, 8.5.2, 8.6.1, 8.6.2, 8.7.1, 8.7.2, 8.9.1, 8.9.2, 8.10.1, 8.10.2 Fig. 8.4, Fig. 8.5, Fig. 8.6, Fig. 8.9, Fig. 8.10, Fig. 8.12

Syllabus Area Code PL		Syllabus Area : <i>Project Planning & Control Syllabus Area: Planning</i>	Foundation	Practitioner	Primary Manual Reference
02	05	Approaches and principles of designing Breakdown Structures 1. Product Breakdown Structure (PBS) 2. Work Breakdown Structure (WBS) 3. Organisation Breakdown Structure (OBS) 4. Responsibility Assignment Matrix (RAM) 5. Cost Breakdown Structure (CBS) 6. Resource Breakdown Structure (RBS)	✓		8.3, 8.5.4, 8.7.4
02	06	Purpose of: 1. Work Package 2. WBS Dictionary 3. RACI Matrix, with the RACI interests	✓		8.5.1 to 8.5.3, 8.5.5, 8.5.5.2, 8.8.1, 8.8.2, 8.9.2, 8.10.2, 22.5.2.4.1, Table 8.1, Fig. 8.7, Fig. 8.8, Fig. 8.11
02	07	Purpose of: 1. Dependency management 2. A cost estimate 3. Budgeting 4. Budget transfers	✓		9.2 to 9.4, 11.2, 12.2, 12.5
02	08	Characteristics of common estimating methods: 1. Specific Analogy Estimating 2. Parametric Estimating 3. Delphi Technique 4. Definitive Estimating Methods 5. 'Activity Based Cost' (ABC) Estimating		✓	11.6.1 to 11.62
Be able to apply key concepts relating to the Planning of a project, within a given scenario. Specifically to:					
03	01	Determine activities, outputs and roles involved in the development and maintenance of the plans required throughout the life of the project		✓	7.1.1, 7.2
03	02	Determine when top-down, bottom-up and rolling-wave approaches to planning should be adopted and the outputs of each		✓	7.5 to 7.7
03	03	Interpret 'S' curves and identify planning strategies to work out how best to deliver the project		✓	7.6, 7.7
03	04	Identify appropriate project information for inclusion in the project's Product Breakdown Structure (PBS) and apply the guidance to its creation		✓	8.3, 8.4 Fig. 8.4, Fig. 8.5
03	05	Identify appropriate project information for inclusion in the project's Work Breakdown Structure (WBS) and apply the guidance to its creation		✓	8.3, 8.5.1 to 8.5.4 Fig. 8.4, Fig. 8.6
03	06	Identify appropriate project information for inclusion in the project's WBS Dictionary and apply the guidance to its creation		✓	8.5.5 Fig. 8.7, Fig. 8.8
03	07	Identify appropriate project information for inclusion in the project's Organisational Breakdown Structure (OBS) and apply the guidance to its creation		✓	8.3, 8.6 Fig. 8.4, Fig. 8.9

Syllabus Area Code PL		Syllabus Area : <i>Project Planning & Control Syllabus Area: Planning</i>	Foundation	Practitioner	Primary Manual Reference
03	08	Identify appropriate project information for inclusion in the project's Responsibility Assignment Matrix (RAM) and RACI Matrix and apply the guidance to their creation		✓	8.3, 8.7, 8.8 Fig. 8.8, Fig 8.10 Fig. 8.11 Table 8.1
03	09	Identify appropriate project information for inclusion in the project's Cost Breakdown Structure (CBS) and Resource Breakdown Structure (RBS) and apply the guidance to their creation		✓	8.3, 8.9, 8.10 Fig. 8.4, Fig. 8.12
03	10	Identify the project interfaces that need to be monitored and controlled during the life of the project, together with their scope		✓	9.1 to 9.4
03	11	Determine the appropriate approaches for producing project estimates		✓	11.6
03	12	Determine the activities and roles involved in handover and closeout of the project		✓	30.1, 30.2
		Be able to identify, analyse and distinguish between the appropriate and inappropriate use of key concepts relating to the Planning of a project within a given project scenario. Specifically to analyse:			
04	01	Whether specific activities associated with the development and maintenance of the plans required throughout the life of the project have been applied appropriately, with reasons		✓	7.1.1, 7.2
04	02	Whether a chosen delivery strategy for the project is appropriate, with reasons: • Top-down • Bottom-up • Rolling-wave		✓	7.5 to 7.7
04	03	Whether a chosen planning strategy for the project is likely to be effective, with reasons		✓	7.6, 7.7
04	04	Whether the project's Product Breakdown Structure (PBS) is fit for purpose, with reasons		✓	8.3, 8.4 Fig. 8.4, Fig. 8.5
04	05	Whether the project's Work Breakdown Structure (WBS) is fit for purpose, with reasons		✓	8.3, 8.5.1 to 8.5.4 Fig. 8.4, Fig. 8.6
04	06	Whether the project's WBS Dictionary is fit for purpose, with reasons		✓	8.5.5 Fig. 8.7, Fig. 8.8
04	07	Whether the project's Organisational Breakdown Structure (OBS) is fit for purpose, with reasons		✓	8.3, 8.6 Fig. 8.4, Fig 8.9
04	08	Whether the project's Responsibility Assignment Matrix (RAM) and RACI Matrix are fit for purpose, with reasons		✓	8.3, 8.7, 8.8 Fig. 8.8, Fig 8.10 Fig. 8.11 Table 8.1
04	09	Whether the project's Cost Breakdown Structure (CBS) and Resource Breakdown Structure (RBS) are fit for purpose, with reasons		✓	8.3, 8.9, 8.10 Fig. 8.4, Fig. 8.12
04	10	Whether the project interfaces that need to be monitored and controlled during the life of the project, together with their scope were identified correctly, with reasons		✓	9.1 to 9.4
04	11	Whether selected estimate techniques/methodologies for the project are appropriate, with reasons		✓	11.6

Syllabus Area Code PL		Syllabus Area : <i>Project Planning & Control Syllabus Area: Planning</i>	Foundation	Practitioner	Primary Manual Reference
04	12	Whether the use of activities associated with the handover and closeout of the project are likely to be appropriate, with reasons		✓	30.1, 30.2

Syllabus Area Code SC		Syllabus Area : <i>Project Planning & Control Syllabus Area: Scheduling</i>	Foundation	Practitioner	Primary Manual Reference
Level	Topic				
Know facts, terms and concepts relating to the Scheduling of a project. Specifically to recall the:					
01	01	The definition and elements of scheduling	✓		13.1
01	02	Definition of key network analysis terms, including: 1. Critical path 2. Time analysis 3. Free float 4. Total float 5. Negative float 6. Lead 7. Lag 8. Time contingency 9. Buffer	✓		16.1.1, 16.1.4.1, 16.1.12.1 to 16.1.12.3, 16.1.14, 16.6, 16.6.1.1
01	03	The three identified methods of presenting the results of scheduling	✓		17, 18.2, 18.3
Understand key concepts relating to the Scheduling of a project. Specifically to identify the:					
02	01	Purpose of: 1. Scheduling, and the outputs created 2. Network templates (Fragnets) 3. 'What ifs' (Scenario Planning) 4. Schedule design 5. Critical path network 6. Time analysis	✓		13.2, 13.4.3, 14.1.11, 15.2, 16.1.2, 16.1.4.1 Fig. 16.3
02	02	Typical features associated with schedule density, together with: 1. Relationships between the different densities of schedules on a typical project 2. Schedule detail density considerations and principles	✓		13.4.1.1, 13.4.1.2, 13.4.2 Fig. 13.2

Syllabus Area Code SC		Syllabus Area : Project Planning & Control Syllabus Area: Scheduling	Foundation	Practitioner	Primary Manual Reference
02	03	Purpose of different types of time phased schedules, including: 1. Development or strategic schedule – plus ‘typical contents’ 2. Tender or ‘Bid’ schedule – plus ‘typical contents’ 3. Contract schedule 4. Baseline schedule 5. Summary schedule 6. Working or ‘Forecast’ schedule – plus ‘typical contents’ 7. Short and medium-term schedule 8. Procurement schedules 9. Design deliverables tracker Together with the relationship between them	✓		14.1.1 to 14.1.6, 14.1.8, 14.2.1, 14.2.2, Fig. 14.2
02	04	Purpose and use of key elements of schedule design, including: 1. Hammock 2. Dummy tasks 3. Milestones 4. Identify numbers 5. Activity descriptions 6. Activity types 7. Activity steps 8. Time units 9. Calendars 10. Ordinal dates 11. Project, activity and resource coding	✓		15.3.3.3-5, 15.3.1-2, 15.3.3-7
02	05	Key features of the Precedence Diagram Method (PDM) for determining a critical path and the inputs into a Critical Path Analysis (CPA) (Please Note: The Arrow Diagram Method (ADM) will not be tested)	✓		16.1.3.1, 16.1.4
02	06	Purpose and use of: 1. Monitoring float 2. Different methods of logic linking 3. Leads and lags 4. Activity constraints 5. Barcharts to display networks	✓		16.1.12.5, 16.1.13 to 16.1.17, 17.1 Fig. 16.16, Fig. 16.26
02	07	Use and features of different methods of estimating durations, including: 1. Three point estimates 2. PERT (Programme Evaluation Review Technique) 3. Comparative 4. Benchmark data 5. Resource-dependent 6. Expert opinion	✓		16.2.1 to 16.2.6 Table 16.1 to Table 16.5
02	08	Types of resources and the purpose of resourcing the schedule	✓		16.3.1, 16.3.2

Syllabus Area Code SC		Syllabus Area : <i>Project Planning & Control Syllabus Area: Scheduling</i>	Foundation	Practitioner	Primary Manual Reference
02	09	Purpose and use of: 1. Horizontal and vertical integration of schedules 2. Buffers (incl. advantages and limitations)	✓		16.4, 16.6.2
02	10	Purpose and features of the methods for presenting the results of scheduling: 1. Bar Charts (Gantt Charts) 2. Milestone reporting 3. Line of Balance 4. Time Chainage Together with their advantages and limitations	✓		17.1 to 17.3, 18.3.2, Fig. 17.1 to Fig. 17.11
02	11	Typical composition of a Schedule Narrative	✓		17.4
02	12	Purpose and scope of Schedule Reviews	✓		18.1 to 18.5
02	13	Steps in the scheduling process and steps to prepare for monitoring and control	✓		13.3.1, 13.3.2 Fig. 13.1
02	14	The five steps necessary to construct a network, together with the activities of each	✓		16.1.5 to 16.1.10 Fig. 16.4 to Fig. 16.9
02	15	Advantages and disadvantages of Target Schedules		✓	14.1.7 Fig. 14.1
02	16	Steps in the process of resourcing the schedule		✓	16.3.3, 16.3.4 Fig. 16.27 to Fig. 16.30
02	17	Need to manage project interfaces and the activities necessary to implement the four key stages of dependency management: 1. Identification 2. Coding 3. Integration and impact analysis (incl. internal and external integration) 4. Impact resolution		✓	16.5 Fig. 16.31 to Fig. 16.34
Be able to apply key concepts relating to the Scheduling of a project within a given scenario. Specifically to:					
03	01	Identify and apply the activities involved in the development and maintenance of the project schedule		✓	13.3, 18.3, 18.5
03	02	Identify the types and required densities (levels) of the schedule(s) required by the project and the types of information that may be included in those schedules		✓	13.4, 14.1, 14.2, 14.1.7, 16.1.17 Fig 14.1, Fig. 13.2, Fig.13.3, Fig.14.3, Fig.14.4, Fig. 16.26 Table 13.1
03	03	Determine which elements of schedule design should be included in the project schedule and how they should be used		✓	15.3 Fig. 15.1, Fig. 15.2

Syllabus Area Code SC		Syllabus Area : <i>Project Planning & Control Syllabus Area: Scheduling</i>	Foundation	Practitioner	Primary Manual Reference
03	04	Make use of Critical Path Method [Precedence Diagram Method] to determine: • The Critical Path(s) • Start and finish dates of activities • The completion date of the project • Total and free floats • Leads and lags - Areas of risk		✓	16.1 to 16.1.12, 16.1.14 16.1.15 Fig. 16.1, Fig. 16.3 to Fig 16.13, Fig. 18.2
03	05	Determine relationship types that should be used to link the project's activities logically when developing the schedule		✓	16.1.13 Fig. 16.12 to Fig. 16.16
03	06	Determine whether activity constraints should be used to fix the project's activities at a particular point in time and the types of constraint(s) that should be applied		✓	16.1.15, 16.1.16 Fig. 16.17 to Fig. 16.25
03	07	Determine types of estimates undertaken and interpret the results of those estimates		✓	16.2.1 to 16.2.6 Table 16.1 to Table 16.5 Figure 16.27
03	08	Make use of a number of different approaches to produce duration estimates for the project: 1. Three Point Estimating 2. PERT (Programme Evaluation Review Technique) 3. Comparative 4. Benchmarked Data 5. Resource Dependent 6. Expert Opinion		✓	
03	09	Make use of a Resource Profile (histogram) and apply resource smoothing and levelling to determine and optimise the project resource requirements		✓	16.3.3, 16.3.4 Fig. 16.27 to Fig. 16.30
03	10	Determine whether buffers should be introduced into the network and the types of buffers that should be applied		✓	16.6
03	11	Interpret different methods of presenting the project schedule: 1. Bar Charts 2. Milestone Format Charts 3. Line of Balance 4. Time Chainage		✓	17.1 to 17.3 Fig. 17.1 to Fig. 17.11
03	12	Identify appropriate information for inclusion in the project schedule narrative		✓	17.4
03	13	Undertake a schedule review and determine whether the project's schedule is fit for purpose and, if not, why not?		✓	18.1 to 18.5
03	14	Schedule the project interfaces and dependencies that need to be monitored and controlled during the life of the project		✓	16.5 Fig. 16.31 to Fig. 16.34
Be able to identify, analyse and distinguish between the appropriate and inappropriate use of key concepts relating to the Scheduling of a project within a given project scenario. Specifically to analyse:					
04	01	Whether the use of specific activities associated with the development and maintenance a schedule throughout the life of a project are appropriate, with reasons		✓	13.3, 13.4, 18.5

Syllabus Area Code SC		Syllabus Area : <i>Project Planning & Control Syllabus Area: Scheduling</i>	Foundation	Practitioner	Primary Manual Reference
04	02	Whether the types and densities (levels) of the schedule(s) required by the project are appropriate, with reasons		✓	13.4, 14.1, 14.2, 14.1.7, 16.1.17 Fig 14.1, Fig. 13.2, Fig.13.3, Fig.14.3, Fig.14.4, Fig. 16.26 Table 13.1
04	03	Whether the elements of the project's schedule(s) are fit for purpose and used appropriately, with reasons		✓	15.3 Fig. 15.1, Fig. 15.2
04	04	Whether the Critical Path Method [Precedence Diagram Method] has been used appropriately, with reasons		✓	16.1 to 16.1.12, 16.1.14 16.1.15 Fig. 16.1, Fig. 16.3 to Fig 16.13, Fig. 18.2
04	05	Whether appropriate relationship types have been used to link the project's activities logically when developing the schedule		✓	16.1.13 Fig. 16.12 to Fig. 16.16
04	06	Whether activity constraints have been used appropriately to fix the project's activities at a particular point in time		✓	16.1.15, 16.1.16 Fig. 16.17 to Fig. 16.25
04	07	Whether the types of estimates undertaken were determined and the results of those estimates interpreted correctly		✓	16.2.1 to 16.2.6 Table 16.1 to Table 16.5
04	08	Whether specific activities and approaches used to determine duration estimates for the project are appropriate, with reasons		✓	Figure 16.27
04	09	Whether resource smoothing and levelling activities are appropriate, with reasons		✓	16.3.3, 16.3.4 Fig. 16.27 to Fig. 16.30
04	10	Whether the use of buffers in the network is appropriate, with reasons		✓	16.6
04	11	Whether methods of presenting the project's schedule and their outputs are fit for purpose, with reasons: 1. Bar Chart 2. Milestone Format Chart 3. Line of Balance 4. Time Chainage		✓	17.1 to 17.3 Fig. 17.1 to Fig. 17.11
04	12	Whether appropriate information has been included in the schedule narrative		✓	17.4
04	13	Whether the scope of a project's schedule review(s) is/appropriate and whether specific activities and approaches used to review the schedule are fit for purpose, with reasons		✓	18.1 to 18.5
04	14	Whether the project interfaces and dependencies that need to be monitored and controlled during the life of the project, together with their scope were scheduled correctly, with reasons		✓	16.5 Fig. 16.31 to Fig. 16.34

Syllabus Area Code MC		Syllabus Area : <i>Project Planning & Control Syllabus Area: Monitor and Control</i>	Foundation	Practitioner	Primary Manual Reference
Level	Topic				
		Know facts, terms and concepts relating to the Monitoring and Control of a project. Specifically to recall the:			
01	01	Rules for schedule maintenance, re-planning and re-baselining	✓		21.9
01	02	Fundamental types of performance reporting and the methods used to conduct each of them	✓		22.1
01	03	Definition of Earned Value Analysis (EVA) and its basic terminology 1. Budget at Completion – BAC 2. Planned Cost - PV 3. Earned Value – EV 4. Actual Cost - AC	✓		22.5.2.1, 22.5.2.3
01	04	Definitions of key monitoring terms: 1. Project baseline 2. Short-term planning 3. Cost control 4. Forensic Analysis 5. Record keeping	✓		21.1, 23.1, 24.1, 27.1, 28.1
01	05	Definitions of key risk management terms: 1. Risk Management Plan 2. Residual Risk 3. Risk Draw Down 4. Quantitative Schedule Risk Analysis (QSRA) 5. Quantitative Cost Risk Analysis (QCRA) 6. Sensitivity Analysis	✓		26.3, 26.4.4, 26.5, 26.6.1, 26.7.1, 26.7.3.2.2
01	06	Definitions of key change management terms: 1. Change Management together with the two levels of change to scope or delivery method 2. Changes 3. Change Order	✓		25.1, 25.11.1.1
		Understand key concepts relating to the Monitoring and Control of a project. Specifically to identify the:			
02	01	Purpose and use of a project baseline together with: 1. Principles of project baselining 2. When to set the baseline 3. Links with change management 4. Cost Control 5. Cost Value Report	✓		21.1 to 21.5, 21.10, 22.5.2.6, 23.2, 23.3.3 Fig. 21.1, Fig. 21.2

Syllabus Area Code MC		Syllabus Area : <i>Project Planning & Control Syllabus Area: Monitor and Control</i>	Foundation	Practitioner	Primary Manual Reference
02	02	Purpose and use of: 1. Baseline maintenance 2. Change management Together with the principles of change management and why change control is needed	✓		21.6.2, 21.6.3, 23.3.2, 25.2, 25.3, 25.4.1, 25.4.2, Fig. 21.3 to Fig. 21.6
02	03	Differences between and possible reasons for rebaselining: 1. Re-planning of the project 2. Re-programming of the project	✓		21.7.1, 21.8.1 Table 21.1
02	04	Purpose and use of performance reporting and features of a good control system	✓		22.2, 22.3
02	05	Characteristics of Variance Analysis Methods of Progress Monitoring: 1. Drop line method 2. Activity weeks method 3. Milestone monitoring 4. Cash Flow monitoring 5. Resource monitoring Including the advantages and limitations of each method	✓		22.4 Fig. 22.1 to Fig. 22.6
02	06	Characteristics of Performance Analysis Methods of Progress Monitoring, specifically the use of Network Analysis and measurement of float usage	✓		22.5 Table 22.1
02	07	Elements of a budget for monitoring with Earned Value and their characteristics: 1. Work Packages 2. Planning Packages 3. Management Reserve and Contingency 4. Risk Mitigations Together with how to deal with inflation	✓		22.5.2.4.1 to 22.5.2.4.3, 22.5.2.5 Fig. 22.7
02	08	Elements of the Earned Value cost control process: 1. Performance Measurement Baseline (PMB) 2. Estimate to Complete (ETC) 3. Estimated Final Cost (EFC) Together with the importance of learning lessons from cost control	✓		23.3.1, 23.4
02	09	The purpose of Short-term Planning, its four key elements, and how it should be linked to project schedules	✓		24.2, 24.3 Fig. 24.1
02	10	Short-term Planning considerations: 1. 'Make ready needs' 2. Use of co-ordination meetings and performance reporting	✓		24.3.1 to 24.3.3
02	11	Elements of a project level change control process and its links with corporate governance: 1. Steps 2. Key Activities 3. Decisions	✓		25.5 to 25.14 Fig. 25.1 to Fig. 25.3 Table 25.1

Syllabus Area Code MC		Syllabus Area : <i>Project Planning & Control Syllabus Area: Monitor and Control</i>	Foundation	Practioner	Primary Manual Reference
02	12	Purpose of Earned Value Analysis, together with key elements of the technique: 1. Appropriate uses 2. Advantages and disadvantages 3. Budget loading the schedule 4. Drawing S curves 5. Measuring Progress to Calculate Earned Value 6. Recording actual costs 7. Calculation of Variances and KPIs 8. Forecasting terminology	✓		22.5.2.2, 22.5.2.4, 22.5.2.7 to 22.5.2.12, 23.3.3 Fig. 22.8 to Fig. 22.17
02	13	The use of Earned Value Techniques (EVT) and the advantages/limitations of Earned Value Analysis		✓	22.5.2.10 to 22.5.2.12 Fig. 22.16, Fig. 22.17
02	14	Outputs of a project level change control process including the information required (incl. Change Requests, Change Log, Change Orders and Change Reporting Requirements)		✓	25.5 to 25.14 Fig. 25.1 to Fig. 25.3 Table 25.1
02	15	Purpose of Risk Management together with the ways of drawing down risk budget		✓	26.1, 26.2, 26.4.4, 26.5.1 to 26.5.5 Fig. 26.8
02	16	Purpose and key elements of Quantitative Schedule Risk Analysis (QSRA), together with: 1. Its reliance on Monte Carlo analysis 2. The two elements of QSRA 3. Process – stages and their characteristics 4. Outputs (Probability Charts and Tornado Charts)		✓	26.6.1 to 26.6.4, 26.6.7, 26.6.8 Fig. 26.14, Fig. 26.15
02	17	Purpose and steps of Monte Carlo analysis, including distribution types		✓	26.6.5, 26.6.6 Fig. 26.10 to Fig. 26.13
02	18	Purpose and key elements of Quantitative Cost Risk Analysis (QCRA), together with: 1. Process – stages and their characteristics 2. Outputs (Cumulative Normal Distributions (S-curves) for cost impacts, Sensitivity (Tornado) Charts and QSRA Percentiles) 3. Use of Sensitivity Analysis		✓	26.7.2, 26.7.3 Fig. 26.18, Fig. 26.19
02	19	Purpose and methods of Forensic Analysis: 1. As-Planned vs. As-Built Method (AP v AB) 2. Impacted As-Planned Method (IAP) 3. Collapsed As-built Method (CAB) or AS-built But For (ABBF) 4. Time Impact Analysis Method (TIA) Requirements, Advantages, Disadvantages and where it can be used together with other relevant considerations		✓	27.2, 27.3 Table 27.1 to Table 27.4
Be able to apply key concepts relating to the Monitoring and Control of a project within a given scenario. Specifically to:					

Syllabus Area Code MC		Syllabus Area : <i>Project Planning & Control Syllabus Area: Monitor and Control</i>	Foundation	Practitioner	Primary Manual Reference
03	01	Identify and apply activities involved in the development and maintenance of the project baseline, together with the application of the rules		✓	21.1 to 21.10, 22.5.2.6 Fig. 21.1 to Fig. 21.6 Table 21.1
03	02	Determine the most appropriate methods of reporting the performance of the project and what project information should be included in the performance reports produced		✓	22.1 to 22.5 Fig. 22.1 to Fig. 22.3 Table 22.1
03	03	Interpret the outputs of methods of reporting performance: 1. Drop line method 2. Activity Weeks method 3. Milestone monitoring 4. Cash Flow monitoring 5. Resource monitoring 6. Network Analysis and measurement of float usage		✓	
03	04	Interpret: 1. Curves showing Planned Value, Actual Cost and Earned Value, Cost and Schedule Variance 2. Cost and Schedule Variance Charts 3. Bulls Eye Performance Charts In order to determine the status of the project and identify the likely causes of the reported performance		✓	22.5.2.7, 22.5.2.8 Fig. 22.8 to Fig. 22.14
03	05	Perform Earned Value calculations and determine the status of the project and identify the likely causes of the reported performance: • Cost Variance (CV) • Schedule Variance (SV) • Schedule Performance Index (SPI) Cost Performance Index (CPI)		✓	22.5.2.8
03	06	Use Earned Value data to produce project forecasts: • Estimate At Completion (EAC) • Estimate To Complete (ETC) Estimate Time To Complete (ETTC)		✓	22.5.2.9, 23.3
03	07	Determine the most appropriate Earned Value Technique (EVT) for application during the project		✓	22.5.2.10 Fig. 22.16, Fig. 22.17
03	08	Identify and apply activities involved in the application of an appropriate short-term planning process for the project		✓	24.3 Fig. 24.1, Fig. 24.2
03	09	Identify appropriate use and information for inclusion in the following: 1. Change Request 2. Change Log 3. Monthly Change Report		✓	25.6-10, 25.14 , Fig. 25.2, Fig. 25.3 ,
03	10	Identify activities involved in the application of an appropriate change control process for the project		✓	25.4 to 25.14 Fig. 25.1 to Fig. 25.3

Syllabus Area Code MC		Syllabus Area : <i>Project Planning & Control Syllabus Area: Monitor and Control</i>	Foundation	Practitioner	Primary Manual Reference
03	11	Risk Assessment, the use of the Risk Assessment Matrix, Risk Log and the planning and controlling of the funds for managing risk		✓	26.1, 26.2, 26.4.3, 26.4.4, 26.5.1 to 26.5.5, Fig. 26.3, Fig. 26.8
03	12	Interpret the results of the project's Quantitative Schedule Risk Analysis (QSRA) as displayed on: 1. Probability Charts 2. Tornado Chart 3. Quantitative Schedule Risk Analysis (QSRA) Chart Duration Uncertainty Tornado Chart		✓	26.6.7.1, 26.6.7.2, 26.7.3, 26.6.8 Fig. 26.16 to Fig. 26.18 Table 26.1
03	13	Purpose and steps of Monte Carlo analysis, including distribution types		✓	26.6.5, 26.6.6 Fig. 26.10 to Fig. 26.13
03	14	Interpret the results of the project's Quantitative Cost Risk Analysis (QCRA) and Cost Impact Severity Tornado Chart		✓	26.7.2, 26.7.3 Fig. 26.18, Fig 26.19
03	15	Identify and apply methods Forensic Analysis and Delay and Disruption Analysis		✓	27.1 to 27.3
		Be able to identify, analyse and distinguish between the appropriate and inappropriate use of key concepts relating to the Monitoring and Control of a project within a given project scenario. Specifically to analyse:			
04	01	Whether specific activities undertaken to establish and maintain a Project Baseline are appropriate, with reasons		✓	21.1 to 21.10, 22.5.2.6 Fig. 21.1 to Fig. 21.6 Table 21.1
04	02	Whether Performance Reports are fit for purpose, with reasons		✓	22.1 to 22.5 Fig. 22.1 to Fig. 22.3 Table 22.1
04	03	Whether methods of reporting the project's performance are applied appropriately and whether their outputs are fit for purpose, with reasons: 1. Drop line method 2. Activity Weeks method 3. Milestone monitoring 4. Cash Flow monitoring 5. Resource monitoring 6. Network Analysis and measurement of float usage		✓	22.1 to 22.5, Fig. 22.1 to Fig. 22.3 Table 22.1
04	04	Whether Earned Value information has been interpreted correctly: to determine the status of the project and the likely causes of the reported performance		✓	22.5.2.7, 22.5.2.8 Fig. 22.8 to Fig. 22.14,
04	05	Whether Earned Value calculations have been performed and interpreted correctly to determine the status of the project and identify the likely causes of the reported performance		✓	22.5.2.8
04	06	Whether Earned Value data has been used appropriately to produce project forecasts		✓	22.5.2.9, 23.3

Syllabus Area Code MC		Syllabus Area : <i>Project Planning & Control Syllabus Area: Monitor and Control</i>	Foundation	Practitioner	Primary Manual Reference
04	07	Whether the application of Earned Value Techniques (EVTs) to the project is appropriate, with reasons		✓	22.5.2.10 Fig. 22.16, Fig. 22.17
04	08	Whether the use of specific activities undertaken during short-term, high density scheduling are appropriate, with reasons		✓	24.3 Fig. 24.1, Fig. 24.2
04	09	Whether the following are fit for purpose, with reasons: 1. Change Request 2. Change Log 3. Monthly Change Report		✓	25.6-10, 25.14, Fig. 25.2, Fig. 25.3,
04	10	Whether the use of specific Change Management activities are appropriate, with reasons		✓	25.4 to 25.14 Fig. 25.1 to Fig. 25.3
04	11	Whether the Risk Assessment, the use of the Risk Assessment Matrix, Risk Log and planning and controlling of the funds for managing risk are appropriate, with reasons		✓	26.1, 26.2, 26.4.3, 26.4.4, 26.5.1 to 26.5.5, Fig.26.3, Fig. 26.8
04	12	Whether the results of Quantitative Schedule Risk Analysis (QSRA) as displayed on: 1. Probability Charts 2. Tornado Chart 3. Quantitative Schedule Risk Analysis (QSRA) Chart 4. Duration Uncertainty Tornado Chart are appropriate and accurate.		✓	26.6.7.1, 26.6.7.2, 26.7.3, 26.6.8 Fig. 26.16 to Fig. 26.18 Table 26.1
04	13	Purpose and steps of Monte Carlo analysis, including distribution types		✓	26.6.5, 26.6.6 Fig. 26.10 to Fig. 26.13
04	14	Interpret the results of the project's Quantitative Cost Risk Analysis (QCRA) and the Cost Impact Severity Tornado Chart		✓	26.7.2, 26.7.3 Fig. 26.18, Fig. 26.19
04	15	Identify and apply methods Forensic Analysis and Delay and Disruption Analysis		✓	27.1 to 27.3