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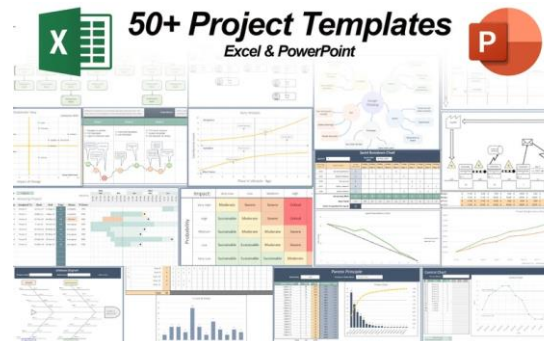
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340 reviews ★★★★★



110

DRAG & DROP

Questions & Answers

Question 1: Estimating

Technique

Analogous

Bottom-Up

3-Point

Parametric

Description

The team uses something similar to estimate, like data from a similar project

A builder uses a measurement to estimate, like \$55 a meter or \$100 an hour

The team adds together the smallest pieces in the WBS to get an overall estimate

A team takes the average of the Optimistic, Most Likely and Pessimistic estimates

Question 1: Estimating

Technique



PMBOK Guide 7th Edition, 2021, P178, “Estimating”.

Description

The team uses something similar to estimate, like data from a similar project

Analogous

A builder uses a measurement to estimate, like \$55 a meter or \$100 an hour

Parametric

The team adds together the smallest pieces in the WBS to get an overall estimate

Bottom-Up

A team takes the average of the Optimistic, Most Likely and Pessimistic estimates

3-Point

Question 2: Project Tools

Chart

Burndown Chart

Throughput Chart

**Requirements Traceability
Matrix**

Gantt Chart

Description

**The team need to see their project activities visually
on a calendar**

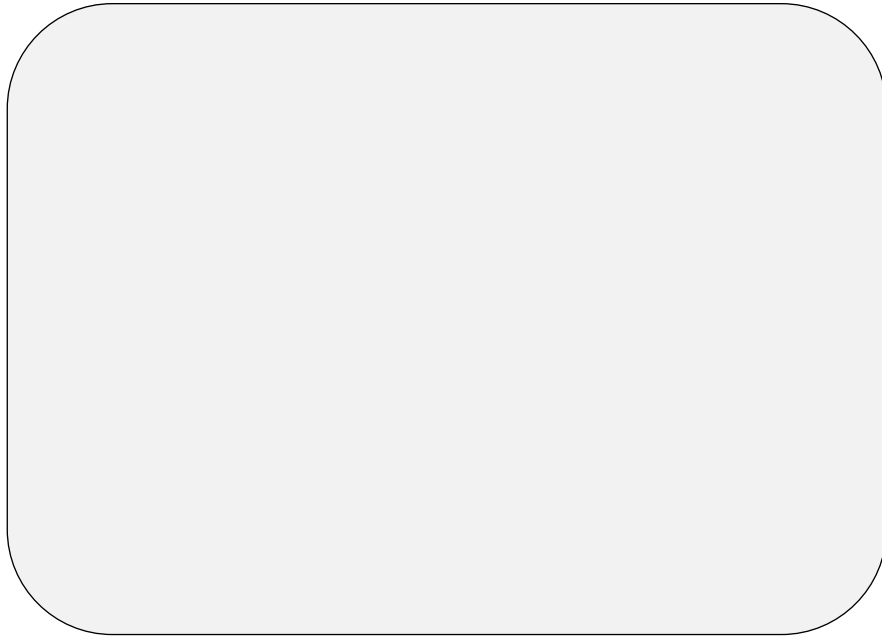
**The Business Analyst needs to show how customer
requirements meet their completed deliverables**

**An agile team wants to show the planned trend of
work, versus actual trend of work**

**A project manager wants to see the number of items
completed each day**

Question 2: Project Tools

Chart



PMBOK Guide 7th Edition, 2021,
P188 - 190, “Visual Data and Information”.

Description

**The team need to see their project activities visually
on a calendar**

Gantt Chart

**The Business Analyst needs to show how customer
requirements meet their completed deliverables**

**Requirements Traceability
Matrix**

**An agile team wants to show the planned trend of
work, versus actual trend of work**

Burndown Chart

**A project manager wants to see the number of items
completed each day**

Throughput Chart

Question 3: Variance Analysis

Answer

**Schedule Performance
Index**

Cost Variance

Cost Performance Index

Schedule Variance

Equation

= Earned Value / Actual Cost

= Earned Value / Planned Value

= Earned Value - Actual Cost

= Earned Value - Planned Value

Question 3: Variance Analysis

Answer



Process Groups: A Practice Guide, 2023, p311, “Earned Value Calculations Summary Table”.

Equation

= Earned Value / Actual Cost

Cost Performance Index

= Earned Value / Planned Value

**Schedule Performance
Index**

= Earned Value - Actual Cost

Cost Variance

= Earned Value - Planned Value

Schedule Variance

Question 4: Earned Value Management

Answer

Earned Value

Planned Value

Budget at Completion

Actual Cost

Description

The project sponsor approves the total planned budget

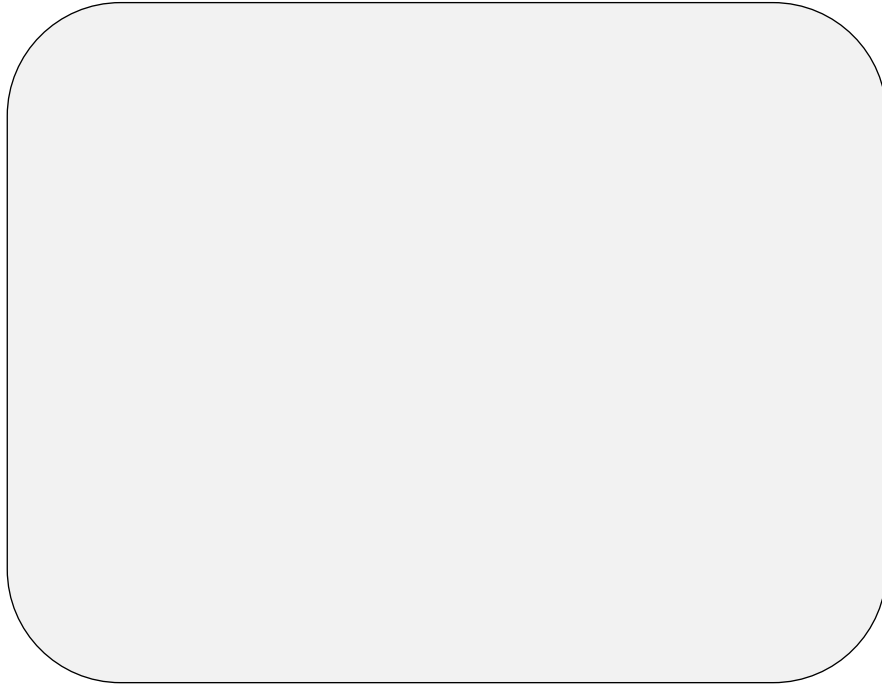
The Project Manager needs to see how much work should have been completed

The team sees how much has actually been completed at any given point in time

The Project Sponsor needs to know what we have actually spent at that point in time

Question 4: Earned Value Management

Answer



Process Groups: A Practice Guide, 2023
p271, “Earned Value Analysis”.

Description

The project sponsor approves the total planned budget

Budget at Completion

The Project Manager needs to see how much work should have been completed

Planned Value

The team sees how much has actually been completed at any given point in time

Earned Value

The Project Sponsor needs to know what we have actually spent at that point in time

Actual Cost

Question 5: A Typical Sprint (Iteration)

Ceremony

Daily Stand-ups

Retrospective

Sprint Review

Sprint Planning

Backlog Refinement

Order

First

Second

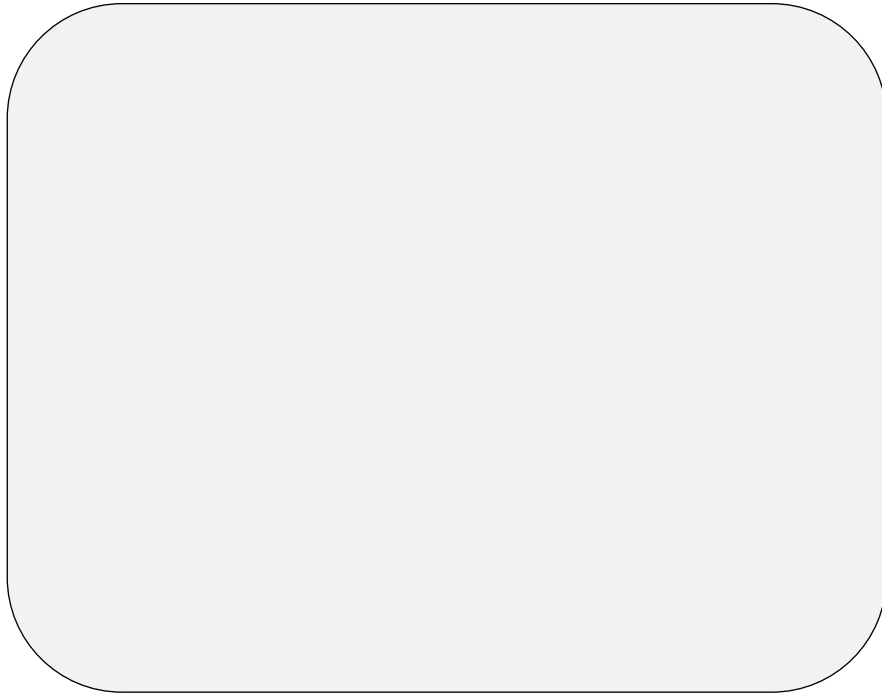
Third

Fourth

Fifth

Question 5: A Typical Sprint (Iteration)

Ceremony



Agile Practice Guide, 2017,
P50, “Common Agile Practices”.

Order



Question 6: Agile Ceremonies

Stage

Retrospective

Backlog Refinement

Sprint Planning

Sprint Review

Daily Stand-ups

Description

The team update User Stories with acceptance criteria and estimates

The team reflect on their process and lessons learnt

The team agree on User Stories to complete in the sprint

The team meet to update what they worked on yesterday, what they will do today and raise any blockers

The team demonstrate the usable increment to the customer

Question 6: Agile Ceremonies

Stage



Agile Practice Guide, 2017,
P50, “Common Agile Practices”.

Description

The team update User Stories with acceptance criteria and estimates

Backlog Refinement

The team reflect on their process and lessons learnt

Retrospective

The team agree on User Stories to complete in the sprint

Sprint Planning

The team meet to update what they worked on yesterday, what they will do today and raise any

Daily Stand-ups

The team demonstrate the usable increment to the customer

Sprint Review

Question 7: Position Descriptions

Role

Scrum Master

Project Manager

Product Owner

Project Sponsor

Description

Emily prioritizes the product backlog based on customer value

Liam approves the project funding and resources based on the project charter

Haley is a servant leader who removes blockers for the project team

William is in charge of project planning, monitoring and control

Question 7: Position Descriptions

Role



Process Groups: A Practice Guide, 2023
p343, “Definitions” “Sponsor”.

Description

Elicits requirements with the customer and monitors business value

Product Owner

Liam approves the project funding and resources based on the project charter

Project Sponsor

Haley is a servant leader who removes blockers for the project team

Scrum Master

William is in charge of project planning, monitoring and control

Project Manager

Question 8: Process Group ITTOs

Output

Cost Forecasts

Cost Management Plan

Basis of Estimates

Cost Baseline

Process

Determine Budget

Plan Cost Management

Estimate Costs

Control Cost

Question 8: Process Group ITTOs

Output



Process Groups: A Practice Guide, 2023
P99, “Plan Cost Management”

Process

Determine Budget

Cost Baseline

Plan Cost Management

Cost Management Plan

Estimate Costs

Basis of Estimates

Control Cost

Cost Forecasts

Question 9: Programs and Portfolios

Answer

Portfolio

Program

Project

Description

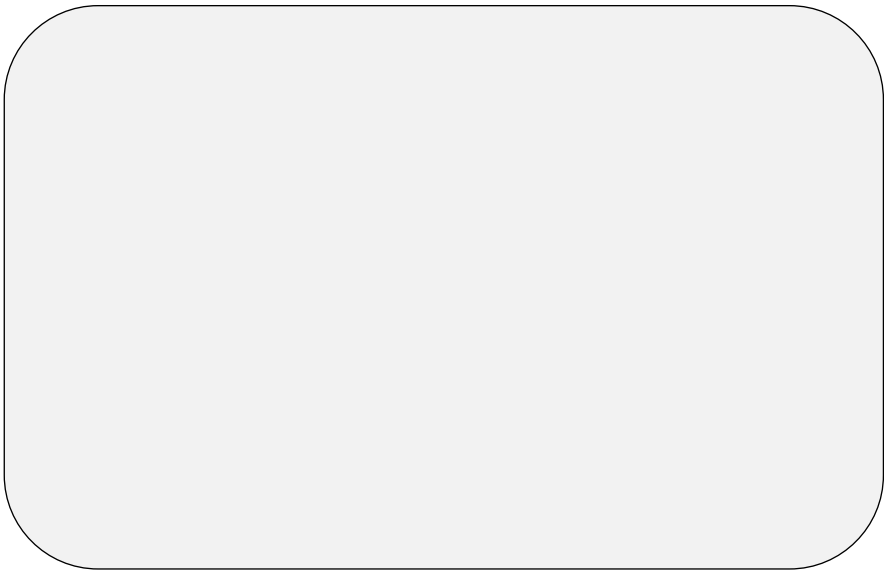
James is hired for a temporary endeavor to deliver a change or business value

Alex has a range of related projects managed as a group

Rachel owns a collection of project groups and operational work to achieve a strategic objective

Question 9: Programs and Portfolios

Answer



Process Groups: A Practice Guide, 2023
p9, “Relationship among Portfolios, Programs
and Projects”.

Description

James is hired for a temporary endeavor to deliver a change or business value
Project
Alex has a range of related projects managed as a group
Program
Rachel owns a collection of project groups and operational work to achieve a strategic objective
Portfolio

Question 10: PMO Types

PMO

Controlling

Directive

Supportive

Description

The PMO provides a consultative role to projects, supplies templates and best practices.

The PMO requires compliance through adoption of methods or frameworks.

Assigns Project Managers who report directly to the PMO.

Question 10: PMO Types

PMO



Process Groups: A Practice Guide, 2023
p48, “Types of PMOs”.

Description

The PMO provides a consultative role to projects, supplies templates and best practices.

Supportive

The PMO requires compliance through adoption of methods or frameworks.

Controlling

Assigns Project Managers who report directly to the PMO.

Directive

Question 11: Business Organizational Matrix

Answer

Matrix - Strong

Organic

PMO

Matrix - Weak

Description

Resource availability high. Budget managed by Project Manager

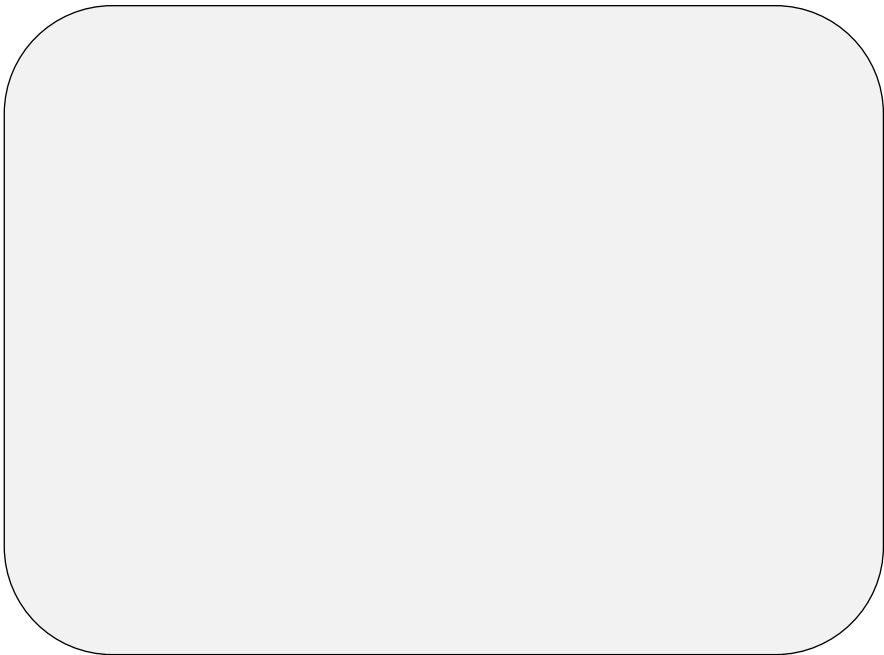
Resource availability moderate to high. Budget managed by Project Manager

Resource availability low. Budget managed by Functional Manager

Resource availability low. Budget managed by Owner or Operator

Question 11: Business Organizational Matrix

Answer



Process Groups: A Practice Guide, 2023
p46, “Organizational Structure Types”.

Description

Resource availability high. Budget managed by Project Manager
PMO
Resource availability moderate to high. Budget managed by Project Manager
Matrix - Strong
Resource availability low. Budget managed by Functional Manager
Matrix - Weak
Resource availability low. Budget managed by Owner or Operator
Organic

Question 12: Leadership Styles

Style

Servant leader

Laissez-faire

Charismatic

Transformational

Description

The Project Manager takes a hands-off approach, allows team to make own decisions

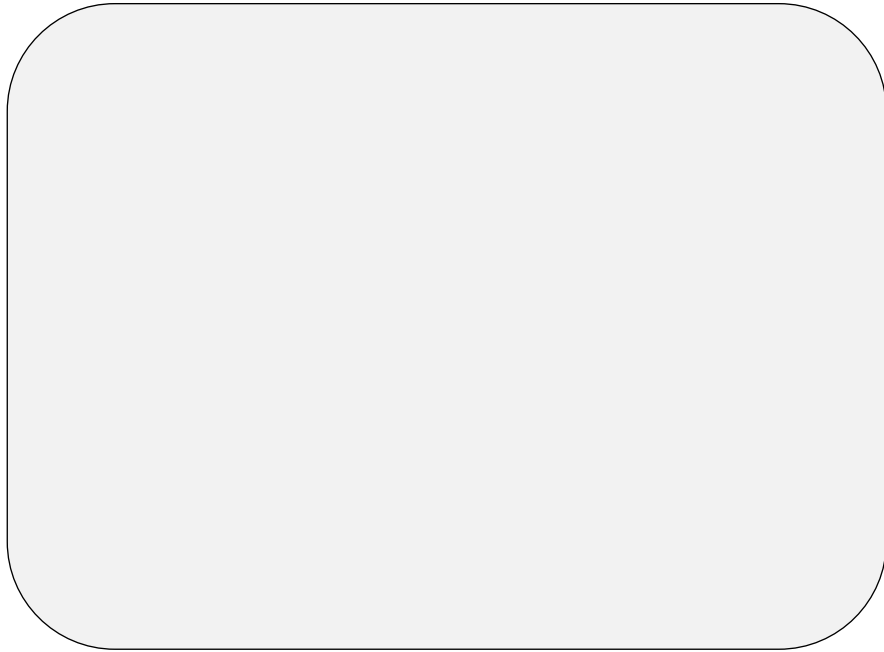
Focus on others' growth, learning, development, autonomy, and well-being

Inspirational motivation

High energy, self-confident, holds strong convictions

Question 12: Leadership Styles

Style



Process Groups: A Practice Guide, 2023
p61, “Leadership Styles”.

Description

**The Project Manager takes a hands-off approach,
allows team to make own decisions**

Laissez-faire

**Focus on others’ growth, learning, development,
autonomy, and well-being**

Servant leader

Inspirational motivation

Transformational

High energy, self-confident, holds strong convictions

Charismatic

Question 13: Schedule

Method	Description
Start to Start	<div>The next activity cannot start until the previous activity has finished</div>
Finish to Finish	<div>The next activity cannot start until the previous activity has started</div>
Finish to Start	<div>The next activity cannot finish until the previous activity has finished</div>
Start to Finish	<div>The next activity cannot finish until the previous activity has started</div>

Question 13: Schedule

Method



Process Groups: A Practice Guide, 2023
p284, “Precedence Diagramming Method”.

Description

- The next activity cannot start until the previous activity has finished

Finish to Start
- The next activity cannot start until the previous activity has started

Start to Start
- The next activity cannot finish until the previous activity has finished

Finish to Finish
- The next activity cannot finish until the previous activity has started

Start to Finish

Question 14: Team Motivation

Term

Parkinson's Law

Extrinsic Motivation

Student Syndrome

Intrinsic Motivation

Dropped Baton

Description

Project work is expanding to fit the time allocated to it

The team waits until the last minute of a deadline to complete their work

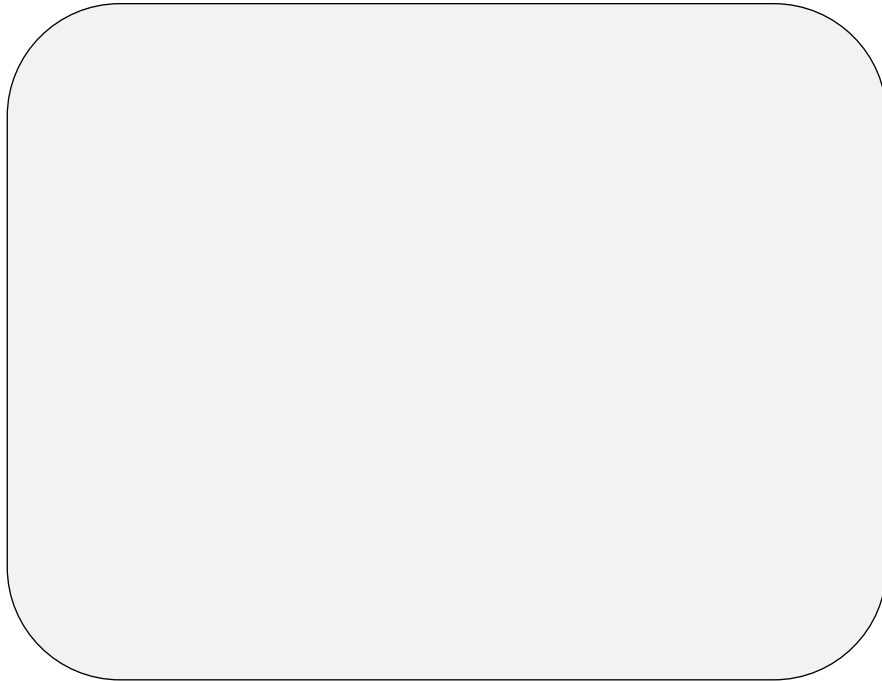
The Functional Manager motivates people with things like money, bonuses and power

Your team finds motivation in the work itself, through a strong purpose

There is not a smooth transition between tasks or team members.

Question 14: Team Motivation

Term



Process Groups: A Practice Guide, 2023
p96, "Motivation of staff".

Description

Project work is expanding to fit the time allocated to it

Parkinson's Law

The team waits until the last minute of a deadline to complete their work

Student Syndrome

The Functional Manager motivates people with things like money, bonuses and power

Extrinsic Motivation

When your team finds motivation in the work itself, through a strong purpose

Intrinsic Motivation

There is not a smooth transition between tasks or team members.

Dropped Baton

Question 15: Myers Briggs (Personality Profiles)

Category	Description	
Extraversion (E)	Luke draws energy from solitary activities and inner reflection	Mike draws energy from social interaction and external activities
Intuition (N)		
Feeling (F)	Casey prefers focusing on concrete facts, details, and present realities	Sally prefers focusing on patterns, possibilities, and future-oriented
Judging (J)		
Perceiving (P)	Sofia makes decisions based on logical analysis and objective	James makes decisions based on personal values, emotions, and
Sensing (S)		
Thinking (T)	Sarah prefers a flexible, adaptable, and spontaneous approach to life	Jill prefers a planned, organized, and structured approach to life
Introversion (I)		

Question 15: Myers Briggs (Personality Profiles)

Category



MBTI | [Myers-Briggs](#)

Description

Luke draws energy from solitary activities and inner reflection

Introversion (I)

Mike draws energy from social interaction and external activities

Extraversion (E)

Casey prefers focusing on concrete facts, details, and present realities

Sensing (S)

Sally prefers focusing on patterns, possibilities, and future-oriented

Intuition (N)

Sofia makes decisions based on logical analysis and objective

Thinking (T)

James makes decisions based on personal values, emotions, and

Feeling (F)

Sarah prefers a flexible, adaptable, and spontaneous approach to life

Perceiving (P)

Jill prefers a planned, organized, and structured approach to life

Judging (J)

Question 16: Organization Management

Theory

Macgregor's Theory X

Herzberg's Theory of Motivation

Macgregor's Theory Y

Maslow's Hierarchy of Needs

Description

The team's needs are met from bottom to top – from safety to belonging to self-actualization

The team takes pride in their work and sees set-backs as a positive challenge

The Project Manager ensures hygiene factors such as job security and fairness of salary are met.

The team is lazy and avoids work – the Project Manager takes a more hands on, authoritarian management style

Question 16: Organization Management

Theory



PMBOK Guide 7th Edition, 2021,
P158, “Motivation Models”.

Description

The team’s needs are met from bottom to top – from safety to belonging to self-actualization

Maslow's Hierarchy of Needs

The team takes pride in their work and sees set-backs as a positive challenge

Macgregor's Theory Y

The Project Manager ensures hygiene factors such as job security and fairness of salary are met.

Herzberg's Theory of Motivation

The team is lazy and avoids work – the Project Manager takes a more hands on, authoritarian management style

Macgregor's Theory X

Question 17: Tuckman's Ladder

Stage	Order
Storming	First Stage
Norming	Second Stage
Adjourning	Third Stage
Forming	Fourth Stage
Performing	Fifth Stage

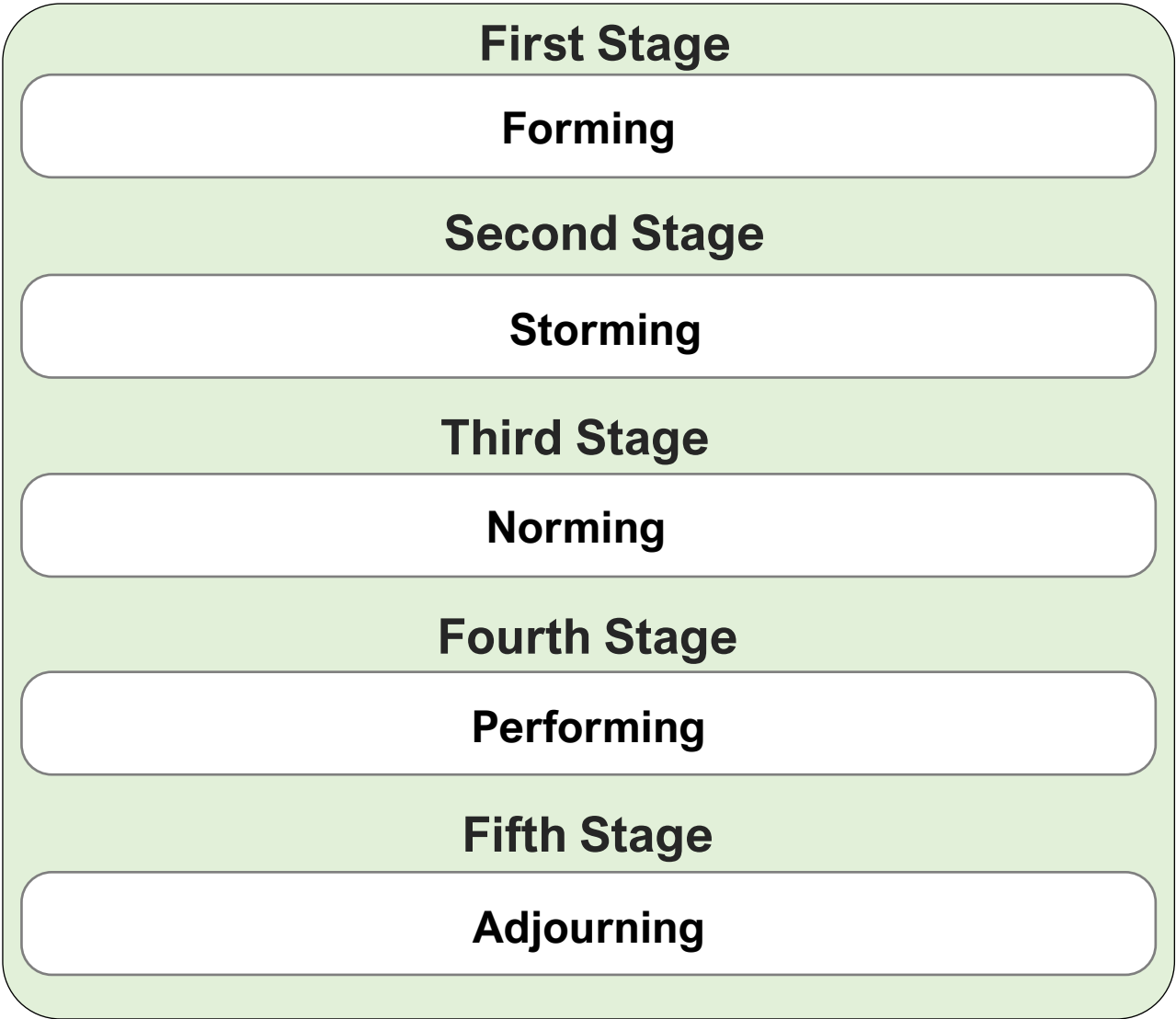
Question 17: Tuckman's Ladder

Stage



PMBOK Guide 7th Edition, 2021,
P166, “Tuckman Ladder”.

Order



Question 18: Position Descriptions

Role

Program Manager

Business Analyst

Functional Manager

Operations Manager

Description

Michael elicits requirements with the customer and monitors business value

Penny oversees and coordinates multiple projects

Sofia is a manager, responsible for a particular area of the organization

Ashley is responsible for the day to day workings of the company

Question 18: Position Descriptions

Role

Process Groups: A Practice Guide, 2023
p324, p338, “Definitions” “Business Analyst”
“Project Manager”.

Description

Michael elicits requirements with the customer and monitors business value
Business Analyst
Penny oversees and coordinates multiple projects
Program Manager
Sofia is a manager, responsible for a particular area of the organization
Functional Manager
Ashley is responsible for the day to day workings of the company
Operations Manager

Question 19: Scope

Term

Scope Creep

Gold Plating

Done Drift

Scope Baseline

Scope Statement

Description

The approved version of a scope statement, WBS, and its associated WBS dictionary

Going above and beyond in the scope when it is not required

Uncontrolled increase in scope

A description of the project and the product scope and major deliverables

The launch date pushed out due to added features

Question 19: Scope

Term

PMBOK Guide 7th Edition, 2021,
P83, “Managing Requirements”.

Description

The approved version of a scope statement, WBS, and its associated WBS dictionary

Scope Baseline

Going above and beyond in the scope when it is not required

Gold Plating

Uncontrolled increase in scope

Scope Creep

A description of the project and the product scope and major deliverables

Scope Statement

The launch date pushed out due to added features

Done Drift

Question 20: Agile Frameworks

Method

**Extreme Programming
(XP)**

**DSDM (Dynamic Systems
Delivery Method)**

SAFe

Large Scale Scrum

Description

The organization applies Scrum ways of working to programs and portfolios, only when necessary

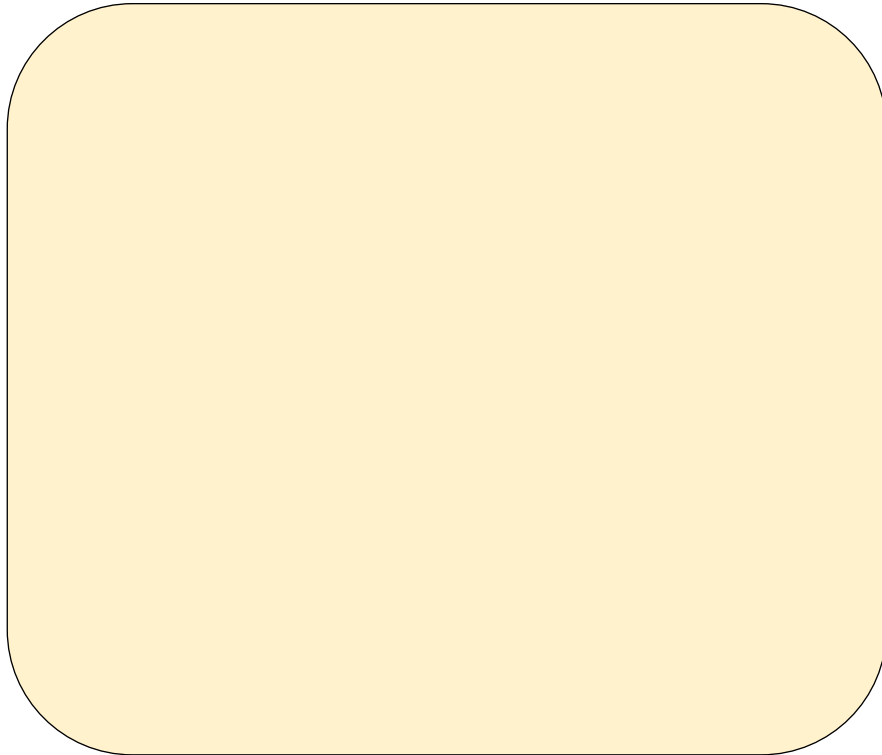
The company focuses on organizing project teams around "Value Streams"

A small team uses a framework that emphasizes iterative development, real customer involvement, and shared code

The team focuses on constraint-driven delivery and formalized prioritization of scope

Question 20: Agile Frameworks

Method



Agile Practice Guide, 2017,
P111, “Scaling Frameworks”.

Description

The organization applies Scrum ways of working to programs and portfolios, only when necessary

Large Scale Scrum

The company focuses on organizing project teams around "Value Streams"

SAFe

A small team uses a framework that emphasizes iterative development, real customer involvement, and shared code

**Extreme Programming
(XP)**

The team focuses on constraint-driven delivery and formalized prioritization of scope

**DSDM (Dynamic Systems
Delivery Method)**

Question 21: Change Control Process

Step	Order
Project team analyses the impact of the change	First
Submit the change for approval (e.g. to CCB)	Second
Stakeholder raises a change request	Third
Communicate the outcome of the request	Fourth
Record the outcome and close the item in the change log	Fifth

Question 21: Change Control Process

Step



PMI.org

“Change Management Process for Project”

Order

First

Stakeholder raises a change request

Second

Project team analyses the impact of the change

Third

Submit the change for approval (e.g. to CCB)

Fourth

Communicate the outcome of the request

Fifth

Record the outcome and close the item in the change log

Question 22: Risk Management Process

Step	Order
Note risk likelihood and impact (Qualitative)	First
Note additional risk data (Quantitative)	Second
Note risk responses and owners	Third
Implement responses if risks occur	Fourth
Identify risks	Fifth

Question 22: Risk Management Process

Step



Process Groups: A Practice Guide, 2023
p113, “Plan Risk Management”.

Order

First
Identify risks
Second
Note risk likelihood and impact (Qualitative)
Third
Note additional risk data (Quantitative)
Fourth
Note risk responses and owners
Fifth
Implement responses if risks occur

Question 23: Schedule and Resources

Method

Schedule Fast Tracking

Schedule Crashing

Resource Smoothing

Resource Leveling

Description

The project manager adjusts activities within their free and total float when resources are unavailable

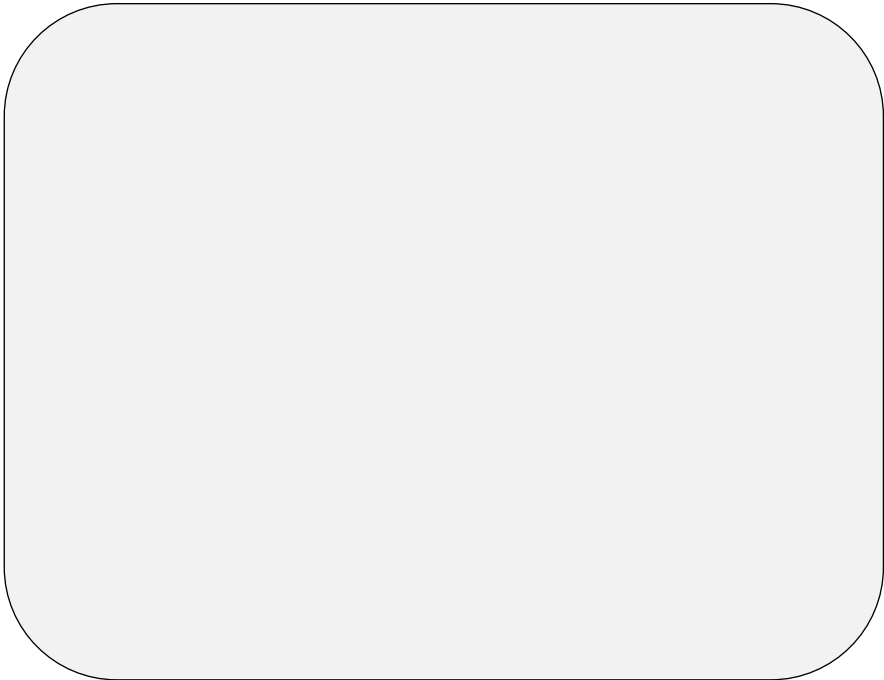
Some activities on the critical path currently in sequence can be done in parallel

Some resources have been overallocated so the PM reprioritizes those activities

The Project Sponsor approves extra funding and resources to expedite delivery of activities

Question 23: Schedule and Resources

Method



Process Groups: A Practice Guide, 2023
p291, “Resource Optimization”.

Description

- The project manager adjusts activities within their free and total float when resources are unavailable**

Resource Smoothing
- Some activities on the critical path currently in sequence can be done in parallel**

Schedule Fast Tracking
- Some resources have been overallocated so the PM reprioritizes those activities**

Resource Leveling
- The Project Sponsor approves extra funding and resources to expedite delivery of activities**

Schedule Crashing

Question 24: Agile Roles

Position

Stakeholders

Product Owner

Scrum Master

Project Team

Description

Represents the customer and prioritizes features in the product backlog

A servant leader that facilitates the ceremonies and removes blockers for the team

Performs the work and creates value

Anyone affected (or perceived to be affected) by the project

Question 24: Agile Roles

Position



Agile Practice Guide, 2017, P40, “Agile Roles”.

Description

Represents the customer and prioritizes features in the product backlog
Product Owner
A servant leader that facilitates the ceremonies and removes blockers for the team
Scrum Master
Performs the work and creates value
Project Team
Anyone affected (or perceived to be affected) by the project
Stakeholders

Question 25: Triple Constraint

Item	Adaptive	Predictive
Quality	Variable in an Agile Project	Fixed in a Predictive Project
Scope		
Cost	Fixed in an Agile Project	Variable in a Predictive Project
Time		
Quality	Fixed in an Agile Project	Variable in a Predictive Project
Scope		
Cost	Fixed or Variable in an Agile Project	Fixed or Variable in a Predictive Project
Time		

Question 25: Triple Constraint

Item	Adaptive	Predictive
	<div>Variable in an Agile Project</div> <div>Scope</div>	<div>Fixed in a Predictive Project</div> <div>Scope</div>
	<div>Fixed in an Agile Project</div> <div>Cost</div>	<div>Variable in a Predictive Project</div> <div>Cost</div>
	<div>Fixed in an Agile Project</div> <div>Time</div>	<div>Variable in a Predictive Project</div> <div>Time</div>
	<div>Fixed or Variable in an Agile Project</div> <div>Quality</div>	<div>Fixed or Variable in a Predictive Project</div> <div>Quality</div>

Question 26: Tuckman's Ladder

Stage

Forming

Performing

Storming

Adjourning

Norming

Description

The team know each others' roles and find a regular rhythm

The project finishes and the team move on to other things

Team members come together, but they are still independent and individual

The team comes to rely on each other, they have high trust and know each other well

Conflicts arise in the team as different personalities and work styles come together

Question 26: Tuckman's Ladder

Stage



PMBOK Guide 7th Edition, 2021,
P166, "Tuckman Ladder".

Description

The team know each others' roles and find a regular rhythm
Norming
The project finishes and the team move on to other things
Adjourning
Team members come together, but they are still independent and individual
Forming
The team comes to rely on each other, they have high trust and know each other well
Performing
Conflicts arise in the team as different personalities and work styles come together
Storming

Question 27: Process Group ITTOs

Item	Description
Test and Inspection Planning	Plan Communications Management
Resource Breakdown Structure	Plan Resource Management
Team Charter	Plan Quality Management
Communication Styles Assessment	Estimate Activity Resources
SWOT Analysis	

Question 27: Process Group ITTOs

Item	Description
<div>SWOT Analysis</div>	<div>Plan Communications Management</div> <div>Communication Styles Assessment</div>
	<div>Plan Resource Management</div> <div>Team Charter</div>
	<div>Plan Quality Management</div> <div>Test and Inspection Planning</div>
	<div>Estimate Activity Resources</div> <div>Resource Breakdown Structure</div>

Process Groups: A Practice Guide, 2023

Question 28: Project Phases

Stage

Build

Test

Feasibility

Design

Deploy

Order

First

Second

Third

Fourth

Fifth

Question 28: Project Phases

Stage



PMBOK Guide 7th Edition, 2021,
P42, “Life Cycles and Phase Definitions”.

Order

First
Feasibility
Second
Design
Third
Build
Fourth
Test
Fifth
Deploy

Question 29: Agile Manifesto

Value

Customer collaboration

**Individuals and
interactions**

Responding to change

Working software

Over

Processes and tools

Comprehensive documentation

Contract Negotiation

Following a plan

Question 29: Agile Manifesto

Value



Agile Practice Guide, 2017,
P8, “The Agile Manifesto and Mindset”.

Over

Processes and tools

**Individuals and
interactions**

Comprehensive documentation

Working software

Contract Negotiation

Customer collaboration

Following a plan

Responding to change

Question 30: Quality Tools

Tool

Flowcharts

Ishikawa Diagram

Pareto Analysis

The Five Whys

Description

Asking "why" something happens until we get to the root cause

To show a series of steps that lead to a defect

The problem is at the head and root cause ideas in the fish bones

A count of the data that focuses on the few causes with the biggest impact

Question 30: Quality Tools

Tool



PMBOK Guide 7th Edition, 2021,
P249, “Root Cause Analysis”.

Description

Asking "why" something happens until we get to the root cause

The Five Whys

To show a series of steps that lead to a defect

Flowcharts

The problem is at the head and root cause ideas in the fish bones

Ishikawa Diagram

A count of the data that focuses on the few causes with the biggest impact

Pareto Analysis

Question 31: Project Process Groups

Ceremony

Planning

Executing

Closing

Initiating

Monitoring & Controlling

Order

The Project Sponsor approves the Project Charter, and the PM Identifies the project Stakeholders

The Project Manager develops the Project Management Plan, the team collect requirements and define the scope

The team manages project knowledge, acquire the resources for the project and implement risk responses

The project Customer validates the project scope based on the quality test outcomes

The Project Manager creates the Final Report and releases project team members

Question 31: Project Process Groups

Ceremony



Process Groups: A Practice Guide, 2023
p1, “Introduction”.

Order

The Project Sponsor approves the Project Charter, and the PM Identifies the project Stakeholders

Initiating

The Project Manager develops the Project Management Plan, the team collect requirements and define the scope

Planning

The team manages project knowledge, acquire the resources for the project and implement risk responses

Executing

The project Customer validates the project scope based on the quality test outcomes

Monitoring & Controlling

The Project Manager creates the Final Report and releases project team members

Closing

Question 32: Project Artifacts

Tool

Business Case

Project Management Plan

Project Charter

Team Charter

Description

A manager needs a feasibility study to confirm if a project will offer value

A project sponsor needs to formally authorize a project

A project manager needs a plan for managing the project including the scope, schedule, cost and quality

A Scrum Master needs a collaborative document that outlines how the team will work effectively throughout the project

Question 32: Project Artifacts

Tool



PMBOK Guide 7th Edition, 2021,
P184, “Commonly Used Artifacts”.

Description

A manager needs a feasibility study to confirm if a project will offer value

Business Case

A project sponsor needs to formally authorize a project

Project Charter

A project manager needs a plan for managing the project including the scope, schedule, cost and quality

Project Management Plan

A Scrum Master needs a collaborative document that outlines how the team will work effectively throughout the

Team Charter

Question 33: Process Group ITTOs

Stage

Stakeholder Register

**Project Management
Information System**

Project Team Assignments

**Team Performance
Assessments**

Order

A Project Manager is working to Acquire Resources

**The project manager sees gaps in the team's work and needs
to Develop the Team**

**A business analyst is facilitating a session to Identify
Stakeholders**

**The project management team Directs and Manages the
Project Work**

Question 33: Process Group ITTOs

Stage	Order
	<div>A Project Manager is working to Acquire Resources</div> <div>Project Team Assignments</div>
	<div>The project manager sees gaps in the team’s work and needs to Develop the Team</div> <div>Team Performance Assessments</div>
	<div>A business analyst is facilitating a session to Identify Stakeholders</div> <div>Stakeholder Register</div>
	<div>The project management team Directs and Manages the Project Work</div> <div>Project Management Information System</div>

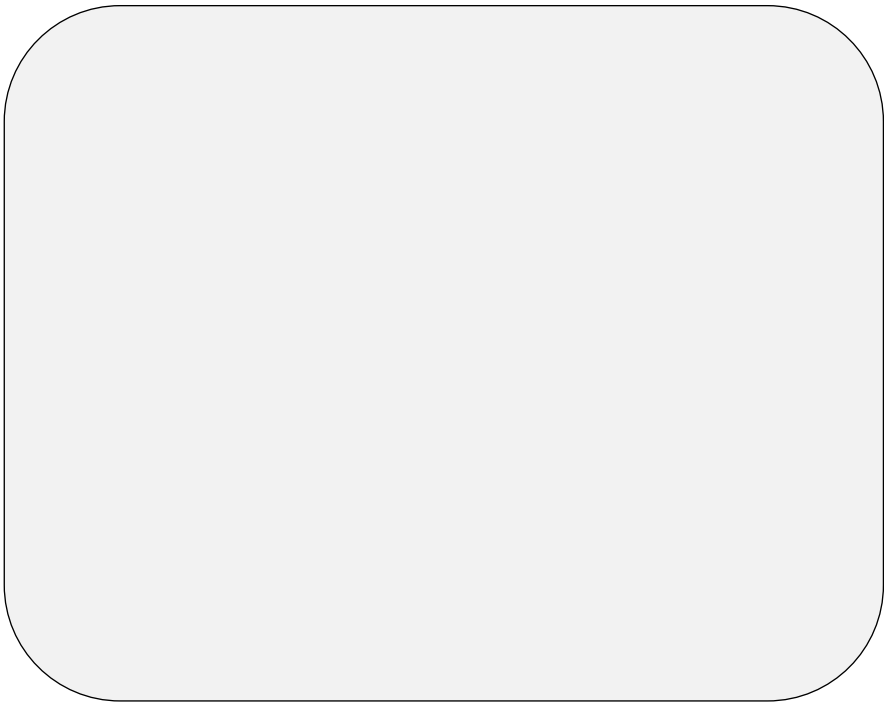
Process Groups: A Practice Guide, 2023
All ITTOs

Question 34: Directions of Influence

Direction	Description
Downward	Senior management, sponsor, steering committee
Sideways	Project team, or specialists providing knowledge or skills to the project
Outward	Peers of the Project Manager, other middle managers in charge of resources
Upward	Suppliers, users, government departments

Question 34: Directions of Influence

Direction



Process Groups: A Practice Guide, 2023
p302, “Directions of Influence”.

Description

Senior management, sponsor, steering committee
Upward
Project team, or specialists providing knowledge or skills to the project
Downward
Peers of the Project Manager, other middle managers in charge of resources
Sideways
Suppliers, users, government departments
Outward

Question 35: Communication

Method

**Interactive
Communication**

Basic Communication

Push Communication

Pull Communication

Description

Paul sends information by email to people who need to receive it

The project stakeholders can access information on a web portal at their own discretion

Anne talks in a straightforward, linear process - a sender transmits a message to a receiver

Stakeholders have a two-way exchange emphasizing ongoing dialogue and mutual understanding between parties

Question 35: Communication

Method



Process Groups: A Practice Guide, 2023
p252, “Communication Methods”.

Description

Paul sends information by email to people who need to receive it

Push Communication

The project stakeholders can access information on a web portal at their own discretion

Pull Communication

Anne talks in a straightforward, linear process - a sender transmits a message to a receiver

Basic Communication

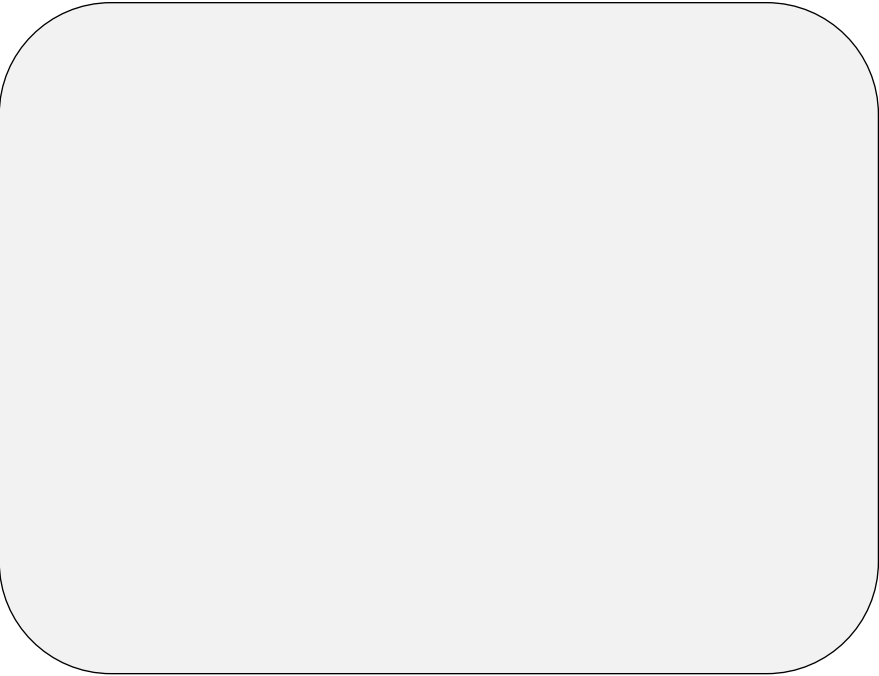
Stakeholders have a two-way exchange emphasizing ongoing dialogue and mutual understanding between parties

**Interactive
Communication**

Question 36: Responsibility Assignment (RACI)

Role	Description
Responsible	Olivia provides expert judgement on part of a system for a project
Accountable	Ben creates the system flow chart to show people how it works
Consulted	Sarah signs off on the Project Deliverable, approving it for release
Informed	Front-line workers need to be told about changes to the system

Question 36: Responsibility Assignment (RACI)

Role	Description
	<div>Olivia provides expert judgement on part of a system for a project</div> <div>Consulted</div>
	<div>Ben creates the system flow chart to show people how it works</div> <div>Responsible</div>
	<div>Sarah signs off on the Project Deliverable, approving it for release</div> <div>Accountable</div>
	<div>Front-line workers need to be told about changes to the system</div> <div>Informed</div>

Process Groups: A Practice Guide, 2023
p293, “Responsibility Assignment Matrix (RAM)”.

Question 37: Resolving Conflict

Role

Withdraw / Avoid

Smooth / Accommodate

Force / Direct

Compromise / Reconcile

Description

Ben stops talking to Anna and retreats from the conflict situation

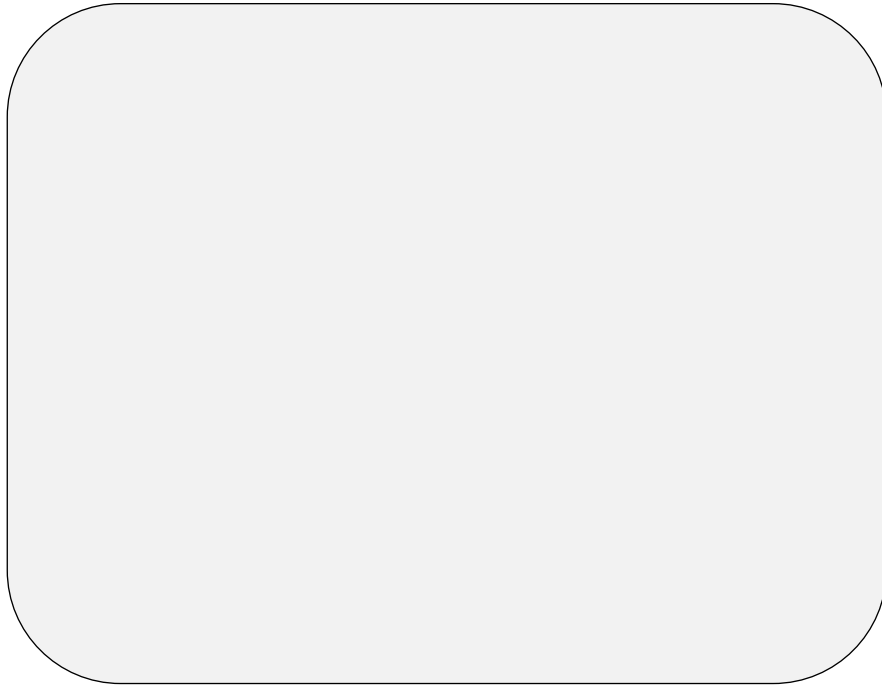
Amy concedes her position to the needs of others to maintain harmony and relationships

Claire wants everyone to get along, asking each party to give something up to resolve the conflict

Michael pushes his viewpoint on the issue, at the expense of others

Question 37: Resolving Conflict

Role



Process Groups: A Practice Guide, 2023
p258, “Conflict Management”.

Description

Ben stops talking to Anna and retreats from the conflict situation

Withdraw / Avoid

Amy concedes her position to the needs of others to maintain harmony and relationships

Smooth / Accommodate

Claire wants everyone to get along, asking each party to give something up to resolve the conflict

Compromise / Reconcile

Michael pushes his viewpoint on the issue, at the expense of others

Force / Direct

Question 38: Interpersonal Skills

Skill

Emotional Intelligence

Influencing

Facilitation

Active Listening

Description

James gets stakeholders together in a workshop to quickly reconcile differences and reveal issues earlier

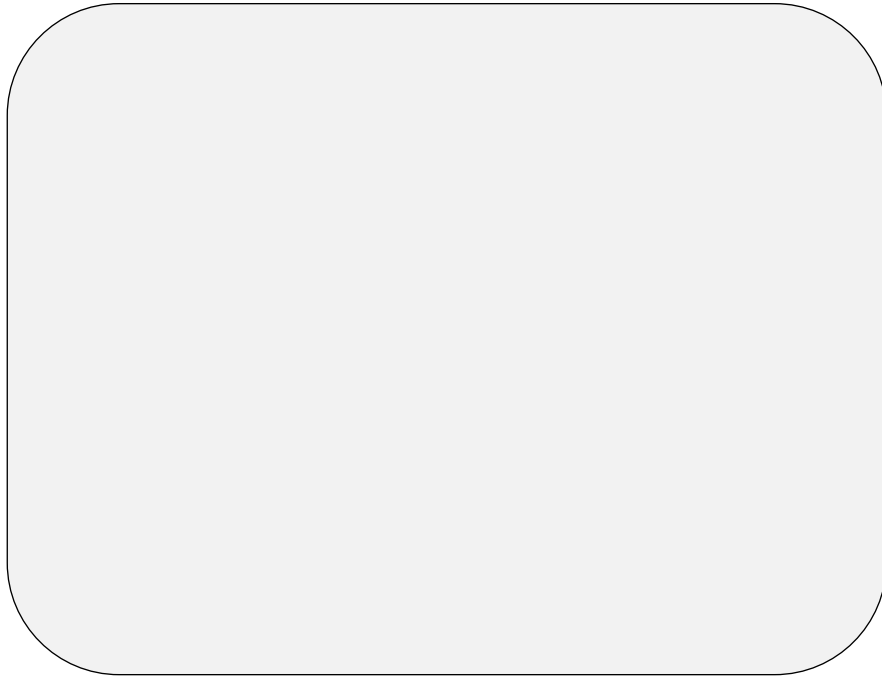
Isabelle thinks before she acts and is empathetic to others in a high-stress situation

Benjamin acknowledges, clarifies and confirms to ensure understanding

Maria clearly articulates points and positions, gathering information to reach agreements

Question 38: Interpersonal Skills

Skill



Process Groups: A Practice Guide, 2023
p331, “Interpersonal and Team Skills”.

Description

James gets stakeholders together in a workshop to quickly reconcile differences and reveal issues earlier

Facilitation

Isabelle thinks before she acts and is empathetic to others in a high-stress situation

Emotional Intelligence

Benjamin acknowledges, clarifies and confirms to ensure understanding

Active Listening

Maria clearly articulates points and positions, gathering information to reach agreements

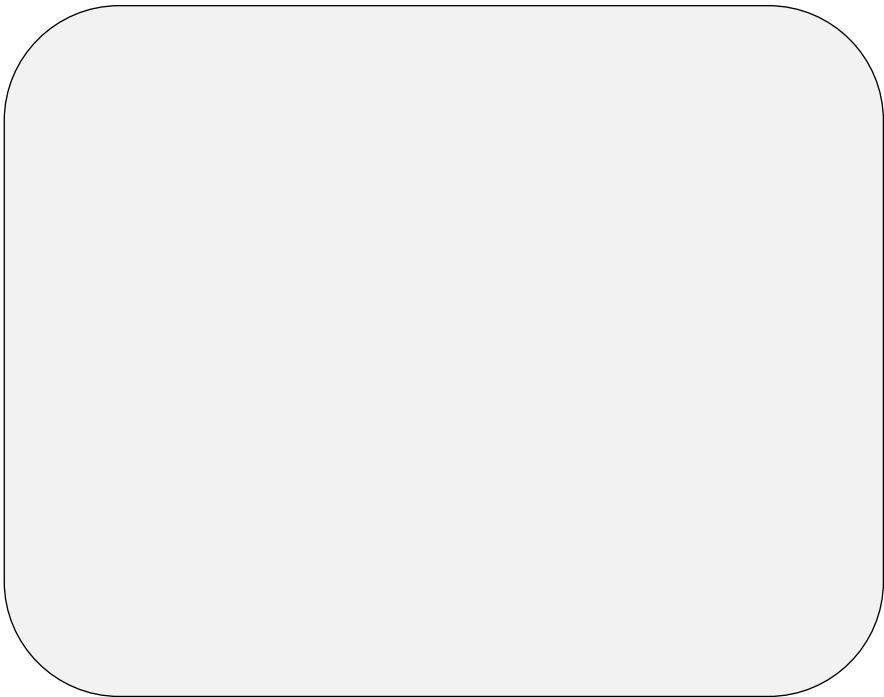
Influencing

Question 39: Risk (Threat) Responses

Stage	Description
Transfer	Leah identifies a risk, but doesn't have the authority to perform the response
Escalate	Riley asks the project team to remove some of their planned scope to eliminate the threat
Mitigate	Owen hires a contracting company to deal with a dangerous part of their project
Avoid	John takes a specific action to reduce the probability or impact of the threat
Accept	Luke acknowledges that there is a risk in his functional area, but decides to take no action

Question 39: Risk (Threat) Responses

Stage



Process Groups: A Practice Guide, 2023
p303, “Strategies for Overall Project Risk”.

Description

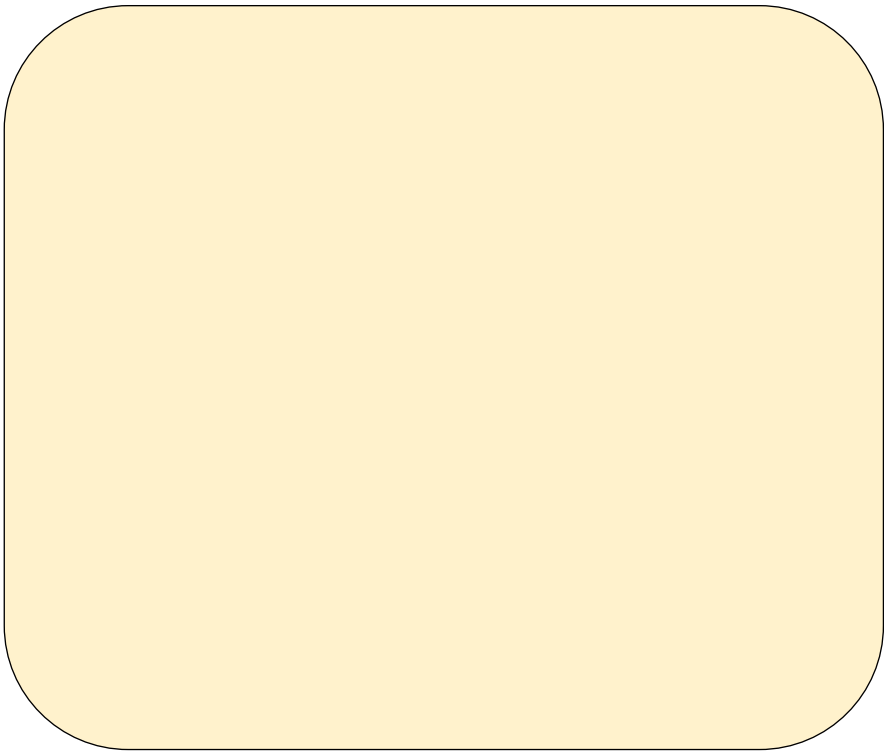
Leah identifies a risk, but doesn’t have the authority to perform the response
Escalate
Riley asks the project team to remove some of their planned scope to eliminate the threat
Avoid
Owen hires a contracting company to deal with a dangerous part of their project
Transfer
John takes a specific action to reduce the probability or impact of the threat
Mitigate
Luke acknowledges that there is a risk in his functional area, but decides to take no action
Accept

Question 40: Risk (Opportunity) Responses

Stage	Description
Share	Jade discovers an opportunity to improve the system but it is outside the scope of the project
Escalate	Liam wants to make sure that an opportunity for a joint venture actually happens
Exploit	Sam finds an opportunity in the system but his project doesn't need it, so he offers it to another project
Enhance	Anna takes steps to increase the probability of the opportunity occurring
Accept	Sarah acknowledges that the opportunity is there, but decides not to take any action

Question 40: Risk (Opportunity) Responses

Stage



Process Groups: A Practice Guide, 2023
p303, “Strategies for Overall Project Risk”.

Description

Jade discovers an opportunity to improve the system but it is outside the scope of the project
Escalate
Liam wants to make sure that an opportunity for a joint venture actually happens
Exploit
Sam finds an opportunity in the system but his project doesn't need it, so he offers it to another project
Share
Anna takes steps to increase the probability of the opportunity occurring
Enhance
Sarah acknowledges that the opportunity is there, but decides not to take any action
Accept

Question 41: Development Approaches

Methodology

Agile

Hybrid

Predictive

Iterative

Incremental

Description

Activities are performed once for the project, with a single delivery at the end

Activities are repeated until correct based on feedback, with a single delivery at the end

Activities are performed once for a given increment, with frequent small increments delivered

Activities are repeated until correct, with frequent small increments delivered

Combines any elements of predictive and adaptive development approaches to get the job done

Question 41: Development Approaches

Methodology



Process Groups: A Practice Guide, 2023
p15, “Project and Development Lifecycles”.

Description

Activities are performed once for the project, with a single delivery at the end

Predictive

Activities are repeated until correct based on feedback, with a single delivery at the end

Iterative

Activities are performed once for a given increment, with frequent small increments delivered

Incremental

Activities are repeated until correct, with frequent small increments delivered

Agile

Combines any elements of predictive and adaptive development approaches to get the job done

Hybrid

Question 42: Agile Collaboration Approaches

Method

Mobbing

Pairing

Swarming

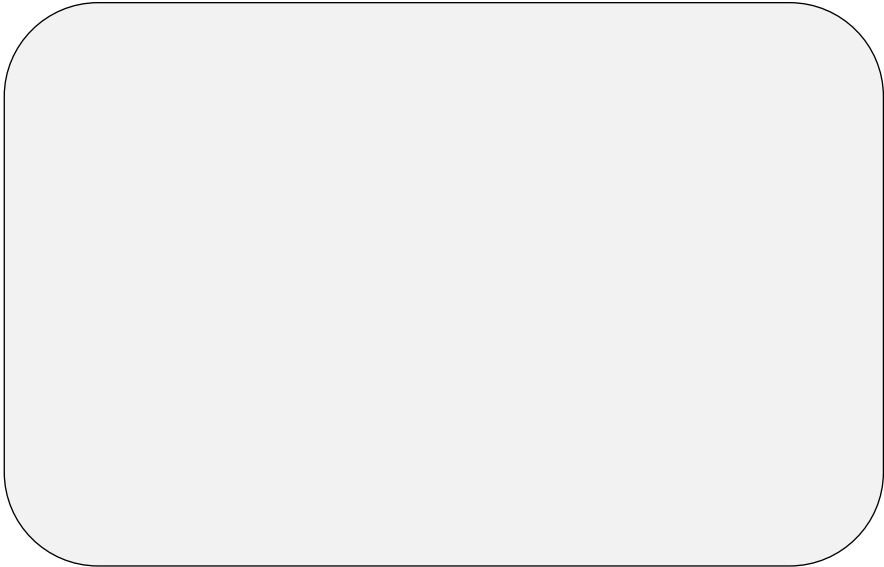
Description

Emily asks the team to work in pairs to complete work, check and learn together

An issue is raised during Stand-Up, and multiple team members meet afterwards to solve it quickly

Oliver is a portfolio owner impacted by a recent change, and asks multiple teams to work closely together for an outcome

Question 42: Agile Collaboration Approaches

Method	Description
	<p>Emily asks the team to work in pairs to complete work, check and learn together</p> <p>Pairing</p>
	<p>An issue is raised during Stand-Up, and multiple team members meet afterwards to solve it quickly</p> <p>Swarming</p>
	<p>Oliver is a portfolio owner impacted by a recent change, and asks multiple teams to work closely together for an outcome</p> <p>Mobbing</p>

Agile Practice Guide, 2017, P152, “Definitions”.

Question 43: Agile Tools

Tool

Velocity Chart

Burndown Chart

Kanban Board

Information Radiator

Description


Henry asks the team to display project information in the team location, such as backlog and risks

Hailey gathers the team around a visual tool used to track and manage workflow, during a stand-up

Lucas needs to see the planned trend of work, versus the actual trend of work

Alice needs to know how many story points the team could complete in the next sprint, during sprint planning

Question 43: Agile Tools

Tool	Description
	<p>Henry asks the team to display project information in the team location, such as backlog and risks</p> <p>Information Radiator</p>
	<p>Hailey gathers the team around a visual tool used to track and manage workflow, during a stand-up</p> <p>Kanban Board</p>
	<p>Lucas needs to see the planned trend of work, versus the actual trend of work</p> <p>Burndown Chart</p>
	<p>Alice needs to know how many story points the team could complete in the next sprint, during sprint</p> <p>Velocity Chart</p>

Agile Practice Guide, 2017, P150, “Definitions”.

Question 44: Agile Artifacts

Item

User Story

Sprint Backlog

Product Backlog

Risk Adjusted Backlog

Description

The user stories the team decide they can complete in a sprint

The prioritized list of features to be delivered

Adjusting the backlog to balance the highest cost risks with the highest value features

A part of a feature that is small enough to complete in a sprint

Question 44: Agile Artifacts

Item



Agile Practice Guide, 2017,
P152, “Definitions”.

Description

The user stories the team decide they can complete in a sprint

Sprint Backlog

The prioritized list of features to be delivered

Product Backlog

Adjusting the backlog to balance the highest cost risks with the highest value features

Risk Adjusted Backlog

A part of a feature that is small enough to complete in a sprint

User Story

Question 45: Agile Decomposition

Item

OKRs

User Stories

Epics

Description

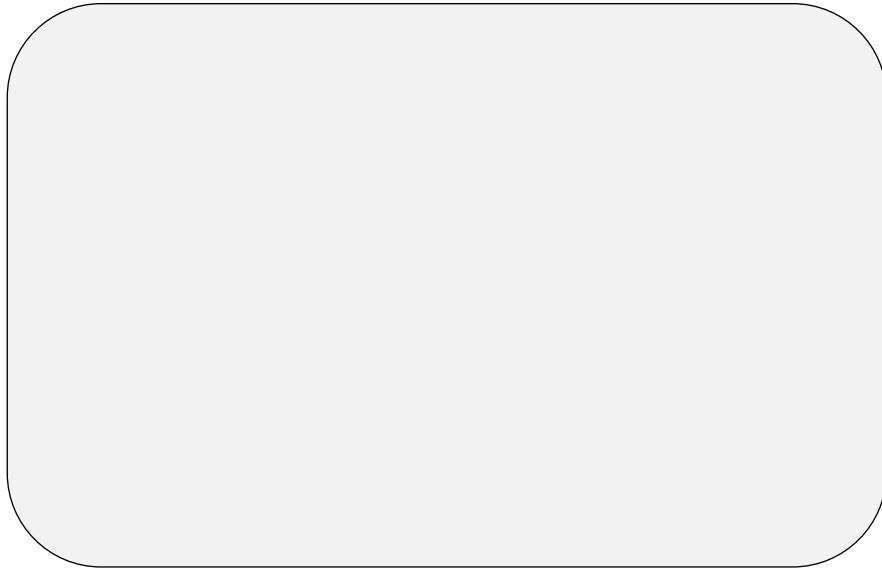
A larger feature or deliverable, or a collection of stories around a central theme

Enterprise led strategic direction, shown as an objective or a business goal with a way to measure it

A description of an end-user's need that can be completed within an iteration

Question 45: Agile Decomposition

Item



Agile Practice Guide, 2017,
P150, “Definitions”.

Description

A larger feature or deliverable, or a collection of stories around a central theme

Epics

Enterprise led strategic direction, shown as an objective or a business goal with a way to measure it

OKRs

A description of an end-user’s need that can be completed within an iteration

User Stories

Question 46: Procurement Bid Documents

Document

Request for Quote (RFQ)

**Request for Information
(RFI)**

**Request for Proposal
(RFP)**

Description

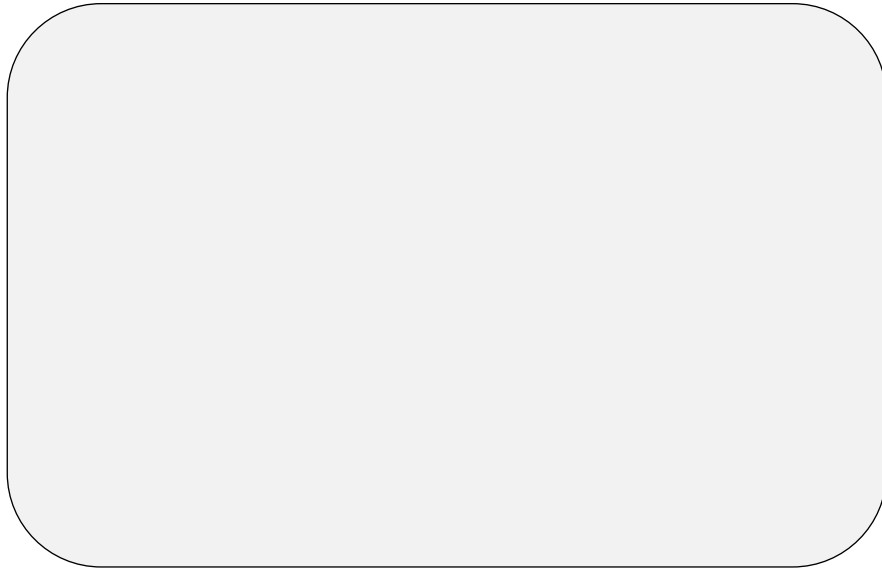
Emma isn't sure on what solution a particular vendor can provide

The project team have a complex problem to be solved by a vendor

The PMO have a clear set of criteria that can be found in the market from multiple vendors

Question 46: Procurement Bid Documents

Document



PMBOK Guide 7th Edition, 2021,
P75, “The Bid Process”.

Description

Emma isn't sure on what solution a particular vendor
can provide

**Request for Information
(RFI)**

The project team have a complex problem to be
solved by a vendor

**Request for Proposal
(RFP)**

The PMO have a clear set of criteria that can be found
in the market from multiple vendors

Request for Quote (RFQ)

Question 47: Procurement Contracts

Document

Fixed Price Contracts

**Time and Materials
Contracts**

**Cost Reimbursable
Contracts**

Description

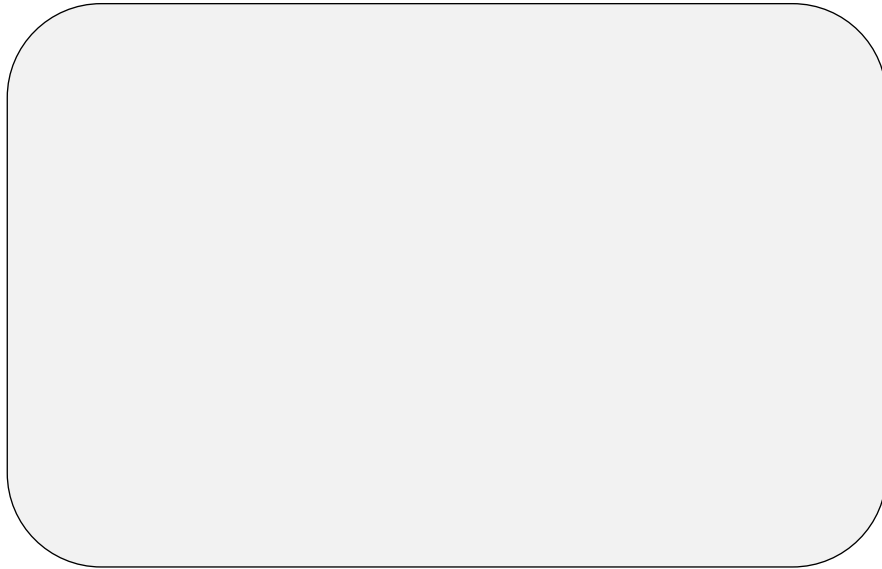
When scope is straight forward and requirements are well defined

When you want to incentivize the seller, or if work is expected to change

Useful when a precise statement of work is not available

Question 47: Procurement Contracts

Document



PMBOK Guide 7th Edition, 2021,
P191, “Agreements and Contracts”.

Description

When scope is straight forward and requirements are well defined

Fixed Price Contracts

When you want to incentivize the seller, or if work is expected to change

**Cost Reimbursable
Contracts**

Useful when a precise statement of work is not available

**Time and Materials
Contracts**

Question 48: Cost Management

Item

Management Reserves

Contingency Reserves

Cost Baseline

Project Budget

Description

Set aside to deal with planned risks, should they occur

Set aside for unexpected activities related to in-scope work

All of the work package costs plus the contingency reserve

The cost baseline plus the management reserves

Question 48: Cost Management

Item



PMBOK Guide 7th Edition, 2021,
P62, “Budget”.

Description

Set aside to deal with planned risks, should they occur

Contingency Reserves

Set aside for unexpected activities related to in-scope work

Management Reserves

All of the work package costs plus the contingency reserve

Cost Baseline

The cost baseline plus the management reserves

Project Budget

Question 49: Agile Concepts

Method

Sustainable Pace

Servant Leadership

The Three Amigos

Stable Teams

Description

Leading by serving the team, removing blockers and facilitating growth

Maintaining a manageable workload that allows the team to work effectively over the long term

When a developer, tester and business representative meet to elicit User Stories

Long-term, consistent teams that perform better together over time

Question 49: Agile Concepts

Method



Agile Practice Guide, 2017,
P34, “Servant Leadership Empowers the
Team”.

Description

**Leading by serving the team, removing blockers and
facilitating growth**

Servant Leadership

**Maintaining a manageable workload that allows the
team to work effectively over the long term**

Sustainable Pace

**When a developer, tester and business representative
meet to elicit User Stories**

The Three Amigos

**Long-term, consistent teams that perform better
together over time**

Stable Teams

Question 50: Agile Concepts

Method

Rolling Wave Planning

Whole Team Approach

Build in Quality

Visual Management

Description

Quality is integrated and maintained throughout every phase of development from requirements to development

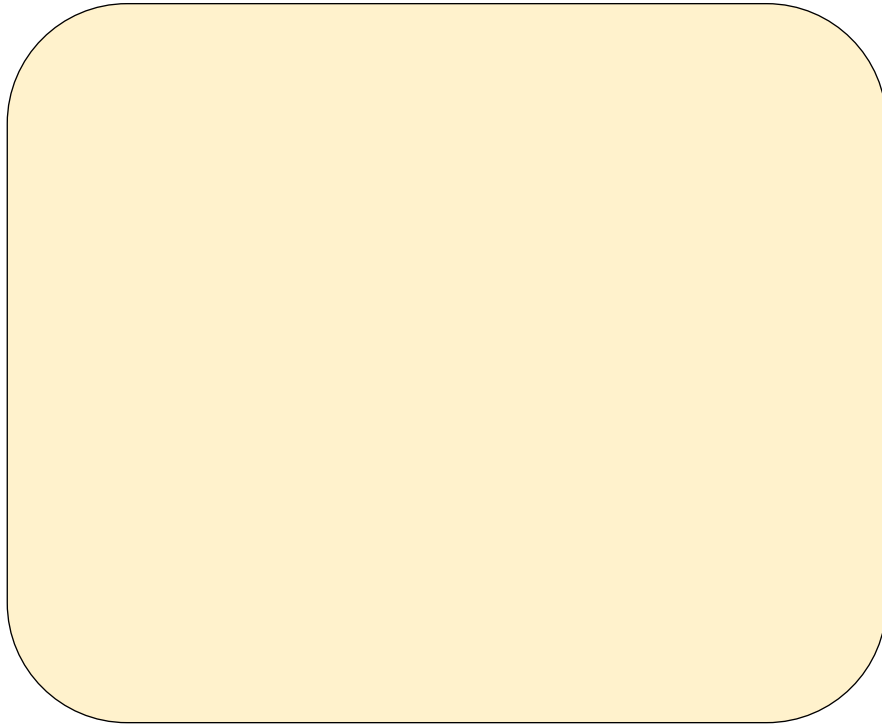
The project team plans near-term work in detail (next sprint) and further away items at a high level (product backlog)

The team removes silos by including everyone they need to deliver the product

Team information is clearly available to all so the team can self-manage

Question 50: Agile Concepts

Method



Agile Practice Guide, 2017,
P150, “Definitions”.

Description

Quality is integrated and maintained throughout every phase of development from requirements to development

Build in Quality

The project team plans near-term work in detail (next sprint) and further away items at a high level (product backlog)

Rolling Wave Planning

The team removes silos by including everyone they need to deliver the product

Whole Team Approach

Team information is clearly available to all so the team can self-manage

Visual Management

Question 51: Agile Concepts

Process

Retrospective

Daily Stand-ups

Information Radiator

**Early and Frequent
Feedback**

Sprint Review

Description

Getting opinions on the product and the processes speeds and increases learning for future releases

The team come together and reflect on their process and lessons learned

The team finish a sprint and demonstrate the usable increment to the customer

The team have a visual display of project information in the team location for anyone to see

The team meet to update what they worked on yesterday, will do today and raise any blockers

Question 51: Agile Concepts

Process



Agile Practice Guide, 2017,
P150, “Definitions”.

Description

Getting opinions on the product and the processes speeds and increases learning for future releases

**Early and Frequent
Feedback**

The team come together and reflect on their process and lessons learned

Retrospective

The team finish a sprint and demonstrate the usable increment to the customer

Sprint Review

The team have a visual display of project information in the team location for anyone to see

Information Radiator

The team meet to update what they worked on yesterday, will do today and raise any blockers

Daily Stand-ups

Question 52: Agile Concepts

Item

Definition of Ready (DoR)

Definition of Done (DoD)

Product Backlog

Sprint Backlog

Description

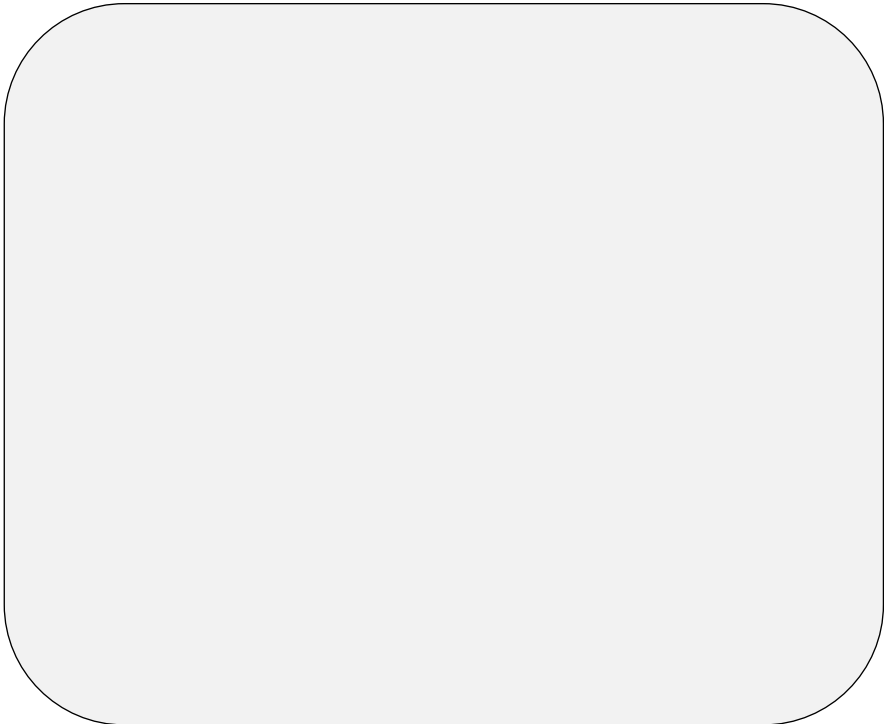
The prioritized list of features to be delivered

The user stories the team decide they can complete in a sprint

Criteria the team agree on for when an item is ready to be worked on

The criteria for when an item can be called "Complete"

Question 52: Agile Concepts

Item	Description
	<div>The prioritized list of features to be delivered</div> <div>Product Backlog</div>
	<div>The user stories the team decide they can complete in a sprint</div> <div>Sprint Backlog</div>
	<div>Criteria the team agree on for when an item is ready to be worked on</div> <div>Definition of Ready (DoR)</div>
	<div>The criteria for when an item can be called "Complete"</div> <div>Definition of Done (DoD)</div>

Agile Practice Guide, 2017, P150, “Definitions”.

Question 53: Agile

Tools

Test Driven Development (TDD)

Feature Driven Development (FDD)

Continuous Integration

Spikes

Behaviour Driven Development (BDD)

Description

The project designs by feature, builds by feature, tests and releases by feature, and has dedicated feature teams

Developers write the test first, then the code that will allow the test to pass

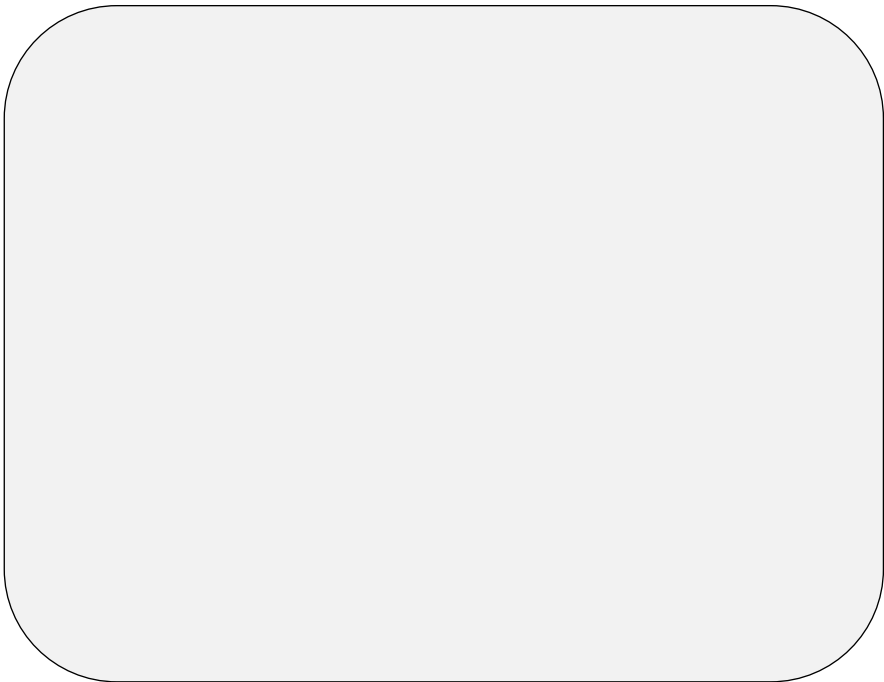
Business Analysts write tests in user-centric language - what customers want and do

Work is frequently incorporated into the main build, and tested as a whole

Timeboxed research or learning, often for technical solutions or acceptance criteria

Question 53: Agile

Tools



Agile Practice Guide, 2017,
P150, “Definitions”.

Description

The project designs by feature, builds by feature, tests and releases by feature, and has dedicated feature teams

Feature Driven Development
(FDD)

Developers write the test first, then the code that will allow the test to pass

Test Driven Development
(TDD)

Business Analysts write tests in user-centric language - what customers want and do

Behaviour Driven
Development (BDD)

Work is frequently incorporated into the main build, and tested as a whole

Continuous Integration

Timeboxed research or learning, often for technical solutions or acceptance criteria

Spikes

Question 54: Agile Measurements

Tools

Predictability

Process Efficiency

Queue Size

Lead Time

Cycle Time

Description

The time to complete a task or smaller piece (i.e. user story)

The time from the customer order to delivery (i.e. features)

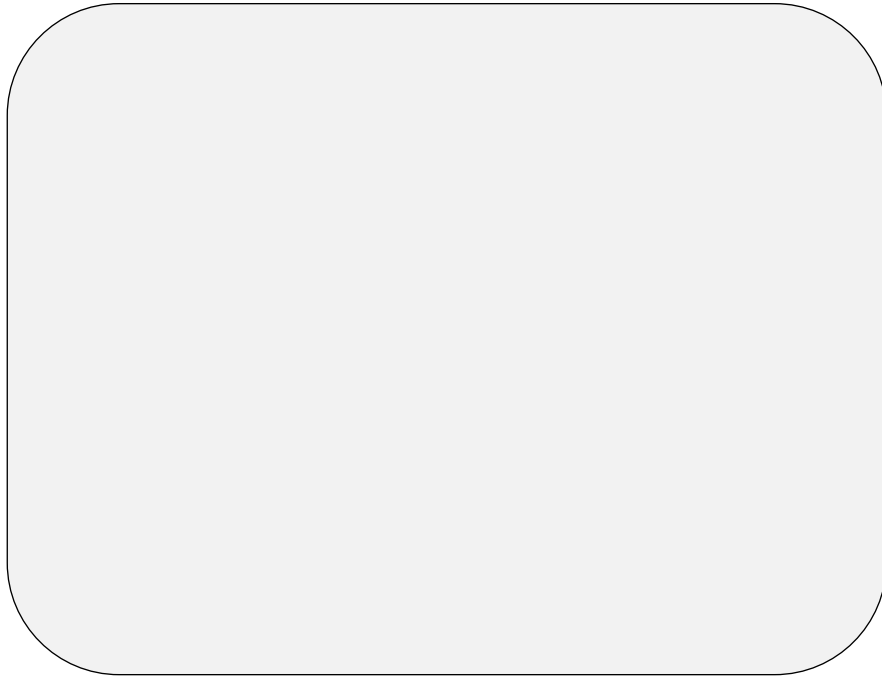
How much was committed versus how much was completed in a given iteration

The amount of work waiting to be completed

Measures of the ratio of value-added work to total work time

Question 54: Agile Measurements

Tools



Agile Practice Guide, 2017,
P66, “Agile Teams Measure Results”.

Description

The time to complete a task or smaller piece (i.e. user story)

Cycle Time

The time from the customer order to delivery (i.e. features)

Lead Time

How much was committed versus how much was completed in a given iteration

Predictability

The amount of work waiting to be completed

Queue Size

Measures of the ratio of value-added work to total work time

Process Efficiency

Question 55: Theory of Constraints

Stage

**Streamline the Process for
Constraint (Exploit)**

**Keep the Process Just at
Capacity (Subordinate)**

**Repeat on Other
Bottlenecks in the Process**

Identify the Constraint

Elevate the Constraint

Order

First

Second

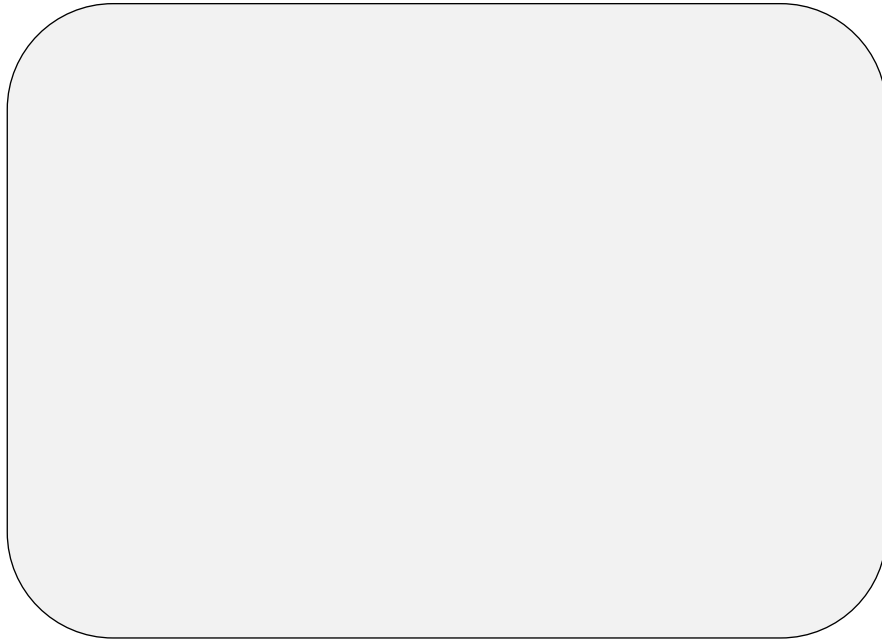
Third

Fourth

Fifth

Question 55: Theory of Constraints

Stage



“The Goal” by Dr. Eli Goldratt

Order

First

Identify the Constraint

Second

**Streamline the Process for
Constraint (Exploit)**

Third

**Keep the Process Just at
Capacity (Subordinate)**

Fourth

Elevate the Constraint

Fifth

**Repeat on Other
Bottlenecks in the Process**

Question 56: Agile Frameworks

Method

Kanban

Scrum

Scrumban

**Extreme Programming
(XP)**

Description

Facilitates iterative progress through time-boxed sprints, with a focus on continuous improvement

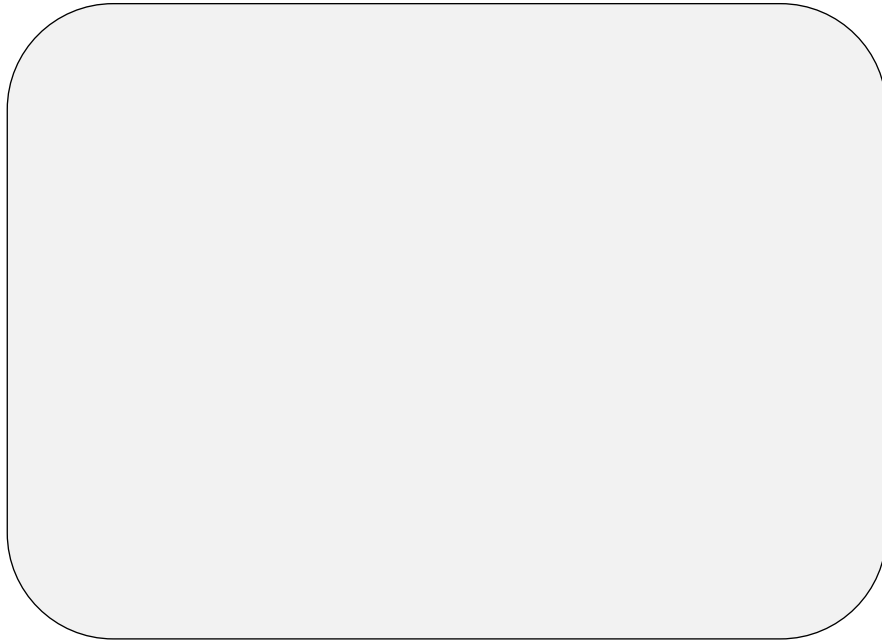
Focuses on frequent releases, continuous feedback, and high customer involvement to improve quality

Workflow management method that optimizes work by limiting work in progress

A hybrid approach that combines the structure of Scrum with the flexibility of Kanban

Question 56: Agile Frameworks

Method



Agile Practice Guide, 2017
P99-111, “Overview of Agile and Lean Frameworks”

Description

Facilitates iterative progress through time-boxed sprints, with a focus on continuous improvement

Scrum

Focuses on frequent releases, continuous feedback, and high customer involvement to improve quality

**Extreme Programming
(XP)**

Workflow management method that optimizes work by limiting work in progress

Kanban

A hybrid approach that combines the structure of Scrum with the flexibility of Kanban

Scrumban

Question 57: Agile Frameworks

Method

**DSDM (Dynamic Systems
Delivery Method)**

Crystal

Agile Unified Process

**Feature Driven
Development (FDD)**

Description

The project designs by feature, builds by feature, tests and releases by feature, and has dedicated feature teams

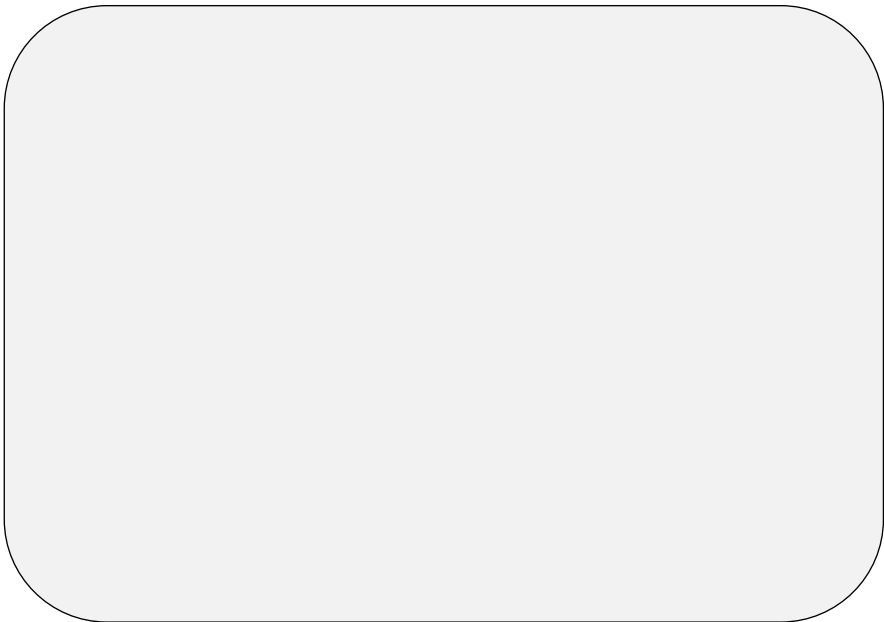
The team focus on constraint-driven delivery, with formalized prioritization of Scope (i.e. MoSCoW)

Aims to perform more iterative cycles across 7 key disciplines such as Modelling, Implementation and Test

A family of methodologies that emphasizes tailoring practices to the specific needs of a project and team

Question 57: Agile Frameworks

Method



Agile Practice Guide, 2017
P99-111, “Overview of Agile and Lean Frameworks”

Description

The project designs by feature, builds by feature, tests and releases by feature, and has dedicated feature teams

**Feature Driven
Development (FDD)**

The team focus on constraint-driven delivery, with formalized prioritization of Scope (i.e. MoSCoW)

**DSDM (Dynamic Systems
Delivery Method)**

Aims to perform more iterative cycles across 7 key disciplines such as Modelling, Implementation and Test

Agile Unified Process

A family of methodologies that emphasizes tailoring practices to the specific size of a project and team

Crystal

Question 58: Agile Scaling Frameworks

Method

Scrum of Scrums

Large Scale Scrum (LeSS)

Enterprise Scrum

SAFe

Disciplined Agile

Description

Applies Scrum ways of working to programs and portfolios, only when necessary

Focuses on organizing project teams around "Value Streams"

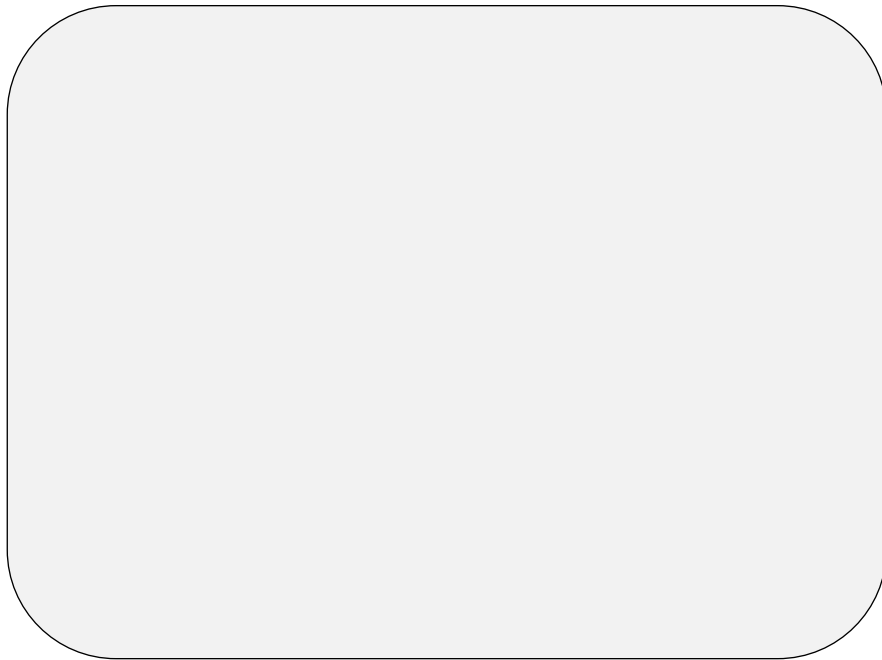
A scaled approach where multiple Scrum teams collaborate through regular cross-team meetings

Aims to extend Scrum practices to the organizational level, aiming to align and integrate multiple teams

Framework that offers a comprehensive, flexible approach, integrating Agile and Lean methodologies

Question 58: Agile Scaling Frameworks

Method



Agile Practice Guide, 2017
p111, "Scaling Frameworks"

Description

Applies Scrum ways of working to programs and portfolios, only when necessary

Large Scale Scrum (LeSS)

Focuses on organizing project teams around "Value Streams"

SAFe

A scaled approach where multiple Scrum teams collaborate through regular cross-team meetings

Scrum of Scrums

Aims to extend Scrum practices to the organizational level, aiming to align and integrate multiple teams

Enterprise Scrum

Framework that offers a comprehensive, flexible approach, integrating Agile and Lean methodologies

Disciplined Agile

Question 59: Cost of Quality

Method

Internal Failure

External Failure

Appraisal Costs

Prevention Costs

Description

William wants to improve the process and provide training for the project team

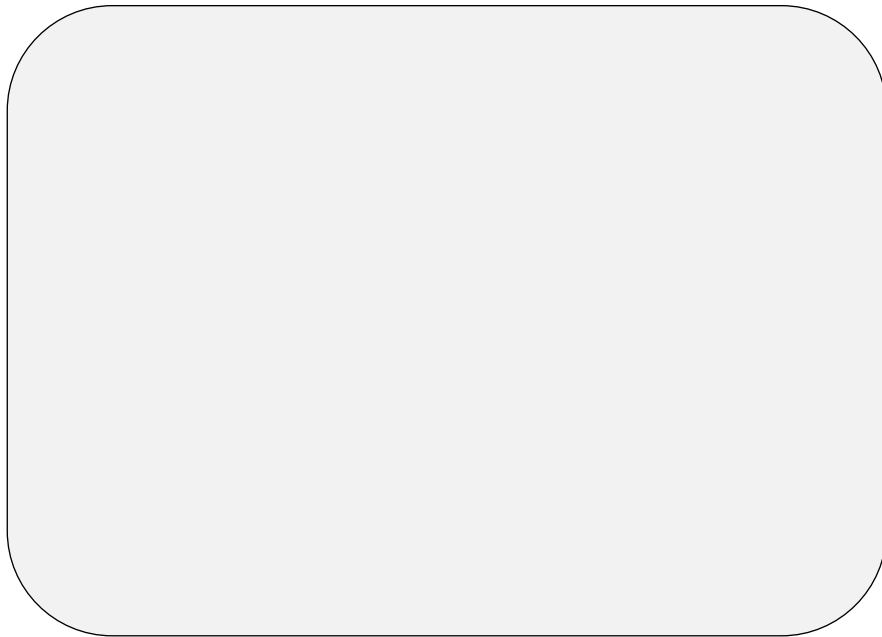
Sofia is a Software tester, and creates a plan to find defects or errors in the product

The product fails during quality assurance testing and review with the senior user

The project team have released the product but customer reviews show a major issue

Question 59: Cost of Quality

Method



PMBOK Guide 7th Edition, 2021,
P88, “Cost of Quality”

Description

William wants to improve the process and provide training for the project team

Prevention Costs

Sofia is a Software tester, and creates a plan to find defects or errors in the product

Appraisal Costs

The product fails during quality assurance testing and review with the senior user

Internal Failure

The project team have released the product but customer reviews show a major issue

External Failure

Question 60: Agile Scenarios

Issue

Unclear purpose for the team

Unclear working agreements

Unclear requirements

Poor user experience

Solution

Involve actual users of the system early and showcase to customers in the Sprint Review

Ensure the Three Amigos collaborate regularly to create User Stories

Workshop the Team Charter to align the Mission and high level Features.

Workshop the Team Charter, DoR and DoD with the team

Question 60: Agile Scenarios

Issue



Agile Practice Guide, 2017
p58, “Agile Pain Points and Troubleshooting”

Solution

Involve actual users of the system early and showcase to customers in the Sprint Review

Poor user experience

Ensure the Three Amigos collaborate regularly to create User Stories

Unclear requirements

Workshop the Team Charter to align the Mission and high level Features.

Unclear purpose for the team

Workshop the Team Charter, DoR and DoD with the team

Unclear working agreements

Question 61: Measurements

Tools

Key Performance Indicators (KPIs)

Leading Indicators

Lagging Indicators

Objectives and Key Results (OKRs)

Description

Proactive metrics used to predict future performance and identify potential issues

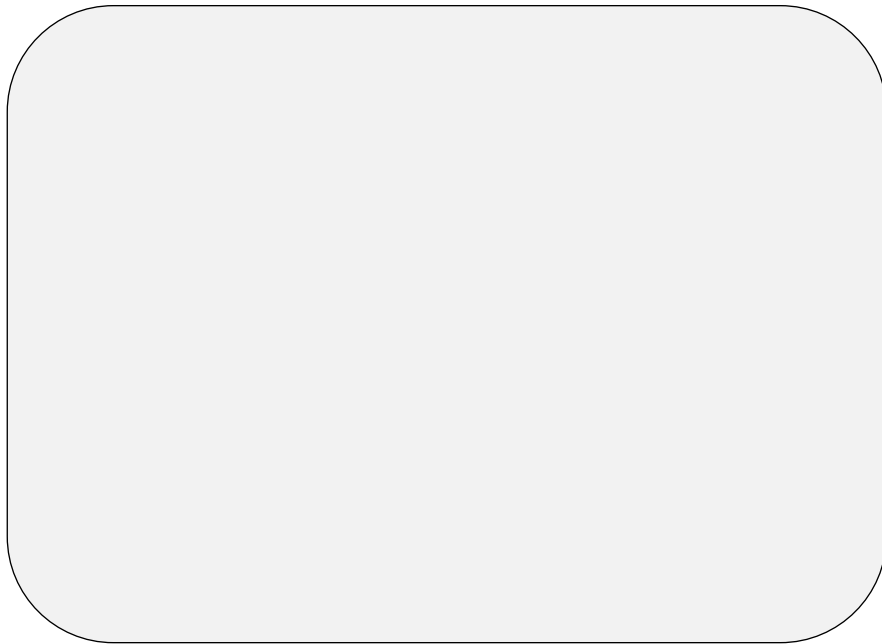
Metrics that reflect past performance and outcomes, providing insights into what has already occurred

Measurable values used to assess the success of project activities and overall performance

A high-level written goal for the project with clear measures to get there

Question 61: Measurements

Tools



PMBOK Guide 7th Edition, 2021,
P94, “Key Performance Indicators”

Description

Proactive metrics used to predict future performance and identify potential issues

Leading Indicators

Metrics that reflect past performance and outcomes, providing insights into what has already occurred

Lagging Indicators

Measurable values used to assess the success of project activities and overall performance

Key Performance Indicators (KPIs)

A high-level written goal for the project with clear measures to get there

Objectives and Key Results (OKRs)

Question 62: Measurement Pitfalls

Method

Demoralization

Confirmation Bias

Hawthorne Effect

Vanity Metrics

Description

What we measure influences behavior

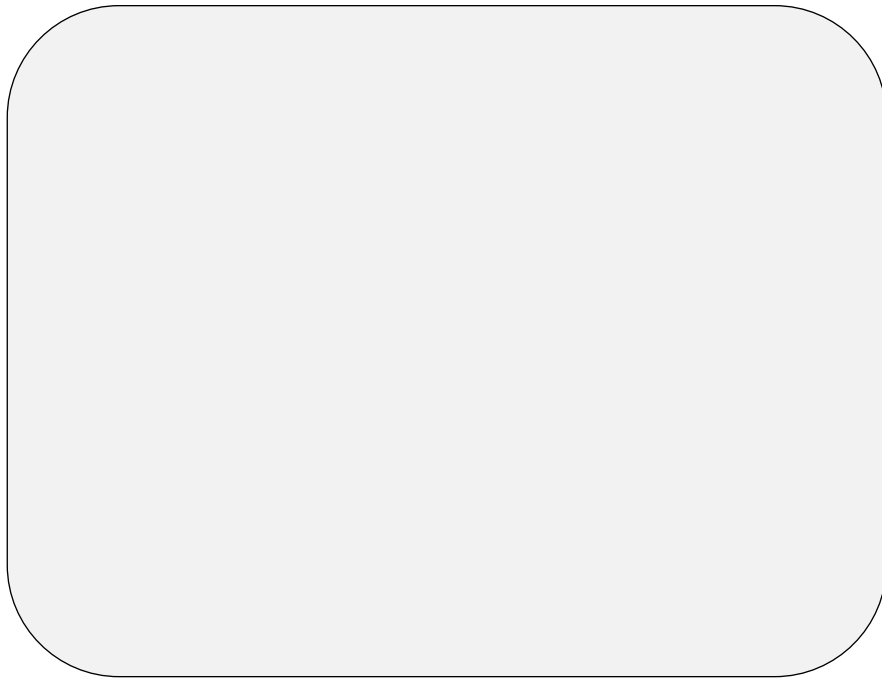
Measuring things that aren't actionable

If what we measure isn't achievable

Using metrics to validate our own opinions

Question 62: Measurement Pitfalls

Method



PMBOK Guide 7th Edition, 2021,
P111 - 112, “Measurement Pitfalls”

Description

What we measure influences behavior

Hawthorne Effect

Measuring things that aren't actionable

Vanity Metrics

If what we measure isn't achievable

Demoralization

Using metrics to validate our own opinions

Confirmation Bias

Question 63: Measurement Pitfalls

Method

Misusing the Metrics

Confirmation Bias

Correlation vs Causation

Vanity Metrics

Description

Measuring things that aren't actionable

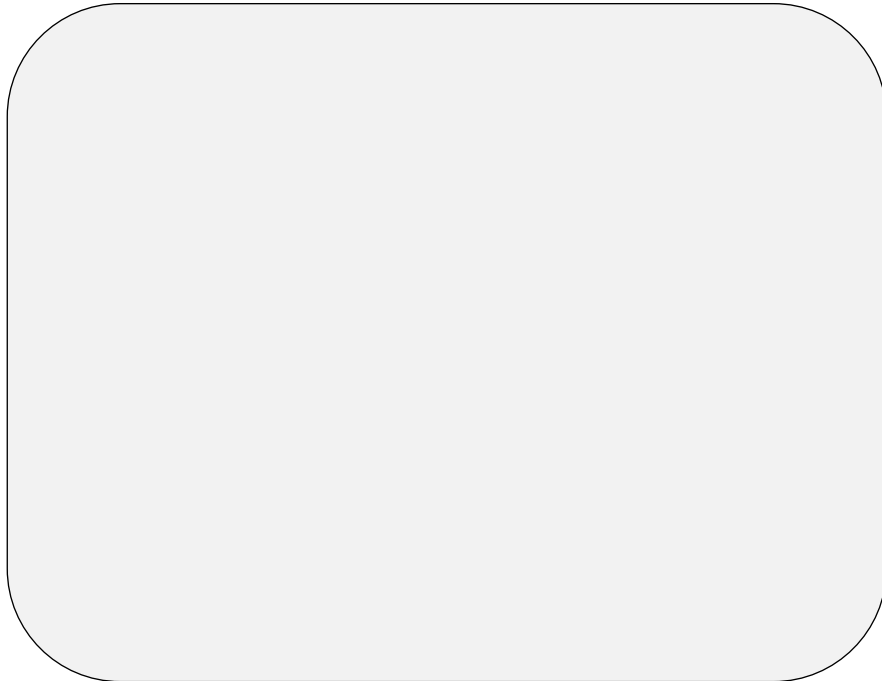
Using metrics as a beating stick, instead of helping remove blockers

Using metrics to align with our own opinions

If two things happen at the same time, it doesn't always mean one caused the other

Question 63: Measurement Pitfalls

Method



PMBOK Guide 7th Edition, 2021,
P111 - 112, “Measurement Pitfalls”

Description

Measuring things that aren't actionable

Vanity Metrics

**Using metrics as a beating stick, instead of helping
remove blockers**

Misusing the Metrics

Using metrics to align with our own opinions

Confirmation Bias

**If two things happen at the same time, it doesn't
always mean one caused the other**

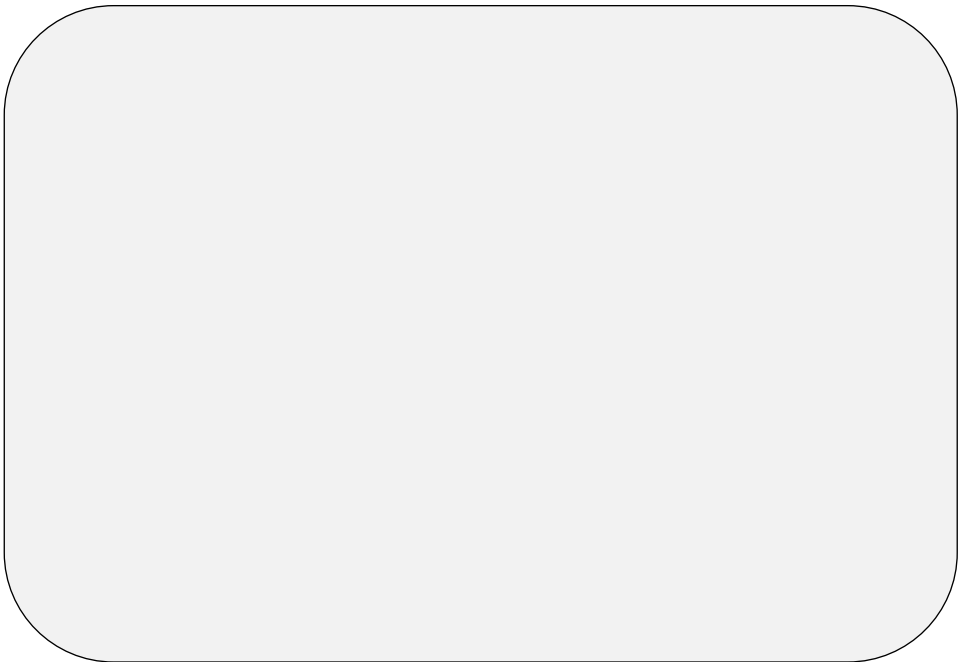
Correlation vs Causation

Question 64: Benchmarking Process

Stage	Order
Select the organizations you wish to compare to	First
Document your current process	Second
Plan and implement changes	Third
Select the process you want to improve	Fourth
Review the results and repeat	Fifth
Collect and compare data from other organizations	Sixth

Question 64: Benchmarking Process

Stage



Process Groups: A Practice Guide, 2023, p249, “Benchmarking”

Order

- First**
Select the process you want to improve
- Second**
Select the organizations you wish to compare to
- Third**
Document your current process
- Fourth**
Collect and compare data from other organizations
- Fifth**
Plan and implement changes
- Sixth**
Review the results and repeat

Question 65: Types of Analysis

Method

Sensitivity Analysis

Make or Buy Analysis

Stakeholder Analysis

Reserve Analysis

Description

Analysis on whether work should be completed internally or purchased from an external supplier

Prioritizing our stakeholders by their influence and impact

Analysing how much contingency and management reserves are remaining

Evaluates how changes in key variables impact project outcomes

Question 65: Types of Analysis

Method



PMBOK Guide 7th Edition, 2021,
P174 - 176, “Data Gathering and Analysis”

Description

Analysis on whether work should be completed internally or purchased from an external supplier

Make or Buy Analysis

Prioritizing our stakeholders by their influence and impact

Stakeholder Analysis

Analysing how much contingency and management reserves are remaining

Reserve Analysis

Evaluates how changes in key variables impact project outcomes

Sensitivity Analysis

Question 66: Types of Analysis

Method

SWOT Analysis

Root Cause Analysis

Regression Analysis

Qualitative Analysis

Description

Analysing a risk probability and impact

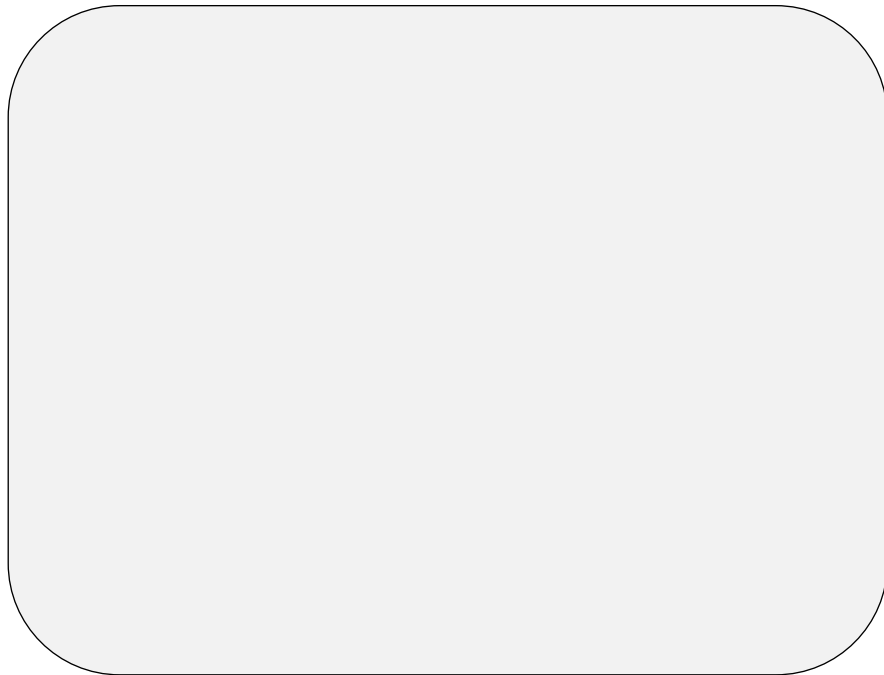
Five Whys, Ishikawa Diagram, Pareto Diagram

Using statistics to find trending data

Analysing strengths, weaknesses, opportunities and threats

Question 66: Types of Analysis

Method



PMBOK Guide 7th Edition, 2021,
P174 - 176, “Data Gathering and Analysis”

Description

Analysing a risk probability and impact

Qualitative Analysis

Five Whys, Ishikawa Diagram, Pareto Diagram

Root Cause Analysis

Using statistics to find trending data

Regression Analysis

Analysing strengths, weaknesses, opportunities and threats

SWOT Analysis

Question 67: Risk Management

Tool

Qualitative Risk Assessment

Quantitative Risk Assessment

Risk Breakdown Structure

Risk Adjusted Backlog

Description

A list of risk categories, broken down from high level to lower level

Adjusting the backlog to balance the highest cost risks with the highest value features

Evaluating risks based on their potential impact, using subjective judgment and expert opinions

Analyzing the potential impact of risks on project objectives using statistical and mathematical methods

Question 67: Risk Management

Tool



Process Groups: A Practice Guide, 2023, p231, “Risk Management Plan”

Description

A list of risk categories, broken down from high level to lower level

Risk Breakdown Structure

Adjusting the backlog to balance the highest cost risks with the highest value features

Risk Adjusted Backlog

Evaluating risks based on their potential impact, using subjective judgment and expert opinions

Qualitative Risk Assessment

Analyzing the potential impact of risks on project objectives using statistical and mathematical methods

Quantitative Risk Assessment

Question 68: Risk Management

Tool

Risk Owners

Risk Definitions

Risk Register

Risk Responses

Description

Clear real-world measures of the risk Impacts and Likelihoods

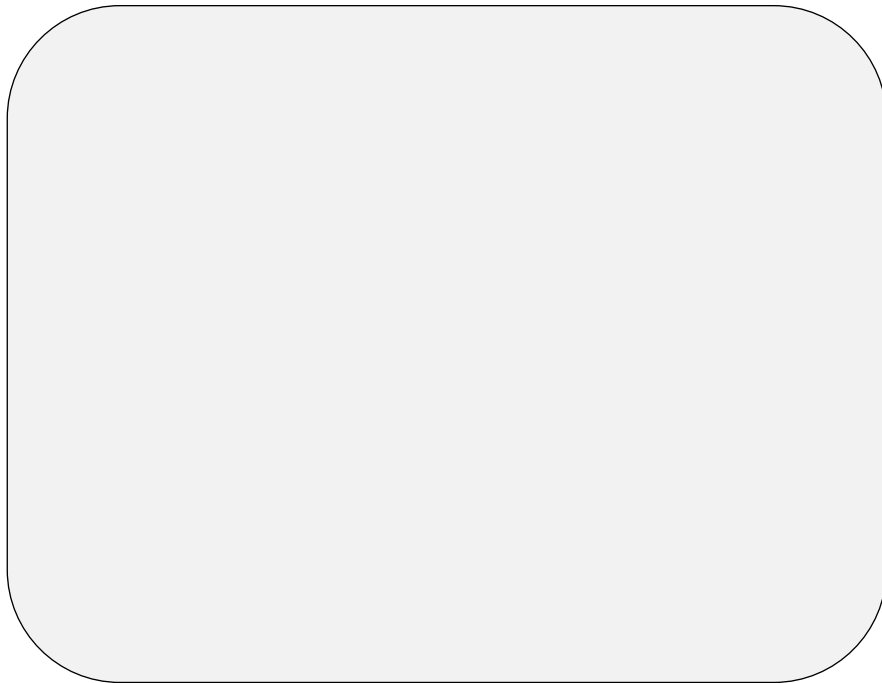
The person accountable for the risk and its outcome

The controls, mitigations or other responses

A list of risks, including title, impact, status, owners and responses

Question 68: Risk Management

Tool



PMBOK Guide 7th Edition, 2021,
p185, “Logs and Registers”

Description

Clear real-world measures of the risk Impacts and Likelihoods

Risk Definitions

The person accountable for the risk and its outcome

Risk Owners

The controls, mitigations or other responses

Risk Responses

A list of risks, including title, impact, status, owners and responses

Risk Register

Question 69: Stakeholders

Tool

Stakeholder Matrix

Salience Chart

Stakeholder Register

**Stakeholder Engagement
Matrix**

Description

Assesses stakeholders by their Power, Urgency and Legitimacy

Prioritizes stakeholders according to the their impact on and influence over your project

Document that lists all project stakeholders, detailing their interests, influence, and impact on the project

Classifies stakeholders by their current and desired level of support for the project

Question 69: Stakeholders

Tool



PMBOK Guide 7th Edition, 2021,
p250, “Stakeholders - Glossary”

Description

Assesses stakeholders by their Power, Urgency and Legitimacy

Salience Chart

Prioritizes stakeholders according to the their impact on and influence over your project

Stakeholder Matrix

Document that lists all project stakeholders, detailing their interests, influence, and impact on the project

Stakeholder Register

Classifies stakeholders by their current and desired level of support for the project

Stakeholder Engagement Matrix

Question 70: Prioritization

Tool

Prioritization Matrix

Multi-Voting

WSJF

Kano Analysis

Description

Michael asks stakeholders to cast votes to rank or narrow down a list of features

Leah prioritizes items with the highest value and the lowest effort

Oliver is using SAFe, prioritizing features using a method similar to the Cost of Delay

Ruby prioritizes features by must-have, satisfiers, and delighters.

Question 70: Prioritization

Tool



Description

Michael asks stakeholders to cast votes to rank or narrow down a list of features

Multi-Voting

Leah prioritizes items with the highest value and the lowest effort

Cost-Benefit Analysis

Oliver is using SAFe, prioritizing features using a method similar to the Cost of Delay

WSJF

Ruby prioritizes features by must-have, satisfiers, and delighters.

Kano Analysis

Question 71: Prioritization

Method

MoSCoW

**Multi-Criteria Decision
Analysis**

Cost of Delay

Prioritization Matrix

Description

**Prioritizes using the dollar benefit value of the item
versus the time it will take to deliver**

**Prioritizing by Must have, Should have, Could have,
Won't have**

**Evaluating and ranking options based on different
criteria that you choose**

**A grid where features are prioritized by effort and
value**

Question 71: Prioritization

Method

Description

Prioritizes using the dollar benefit value of the item versus the time it will take to deliver

Cost of Delay

Prioritizing by Must have, Should have, Could have, Won't have

MoSCoW

Evaluating and ranking options based on different criteria that you choose

**Multi-Criteria Decision
Analysis**

A grid where features are prioritized by effort and value

Prioritization Matrix

Question 72: Estimating Methods

Method

PERT or Beta

Analogous

Wideband Delphi

Relative

Description

The team estimate on its effort, high and low estimates discuss then re-estimate until a consensus is reached

Involves estimating the size or effort of tasks by comparing them to the smallest one

A weighted average of 3 estimates:
(Optimistic, 4 x Most Likely and Pessimistic) / 6

Using something similar to estimate, like a similar project

Question 72: Estimating Methods

Method

PMBOK Guide 7th Edition, 2021,
p178, “Estimating”

Description

The team estimate on its effort, high and low estimates discuss then re-estimate until a consensus is reached

Wideband Delphi

Involves estimating the size or effort of tasks by comparing them to the smallest one

Relative

**A weighted average of 3 estimates:
(Optimistic, 4 x Most Likely and Pessimistic) / 6**

PERT or Beta

Using something similar to estimate, like a similar project

Analogous

Question 73: Project Artifacts

Tool

Histogram

Schedule Network
Diagram

Gantt Chart

Affinity Diagram

Cause and Effect Diagram

Description

James needs to see project activities visually, as bars on a calendar

Dylan has brainstormed dozens of ideas and needs to group them into similar categories

Hannah needs a count of defects shown on a bar chart so she can see the most occurring ones

Matthew has a complex defect and needs to find the root cause

Mia is sequencing the project activities and finding their dependencies

Question 73: Project Artifacts

Tool



PMBOK Guide 7th Edition, 2021,
p188, “Visual Data and Information”

Description

James needs to see project activities visually, as bars on a calendar

Gantt Chart

Dylan has brainstormed dozens of ideas and needs to group them into similar categories

Affinity Diagram

Hannah needs a count of defects shown on a bar chart so she can see the most occurring ones

Histogram

Matthew has a complex defect and needs to find the root cause

Cause and Effect Diagram

Mia is sequencing the project activities and finding their dependencies

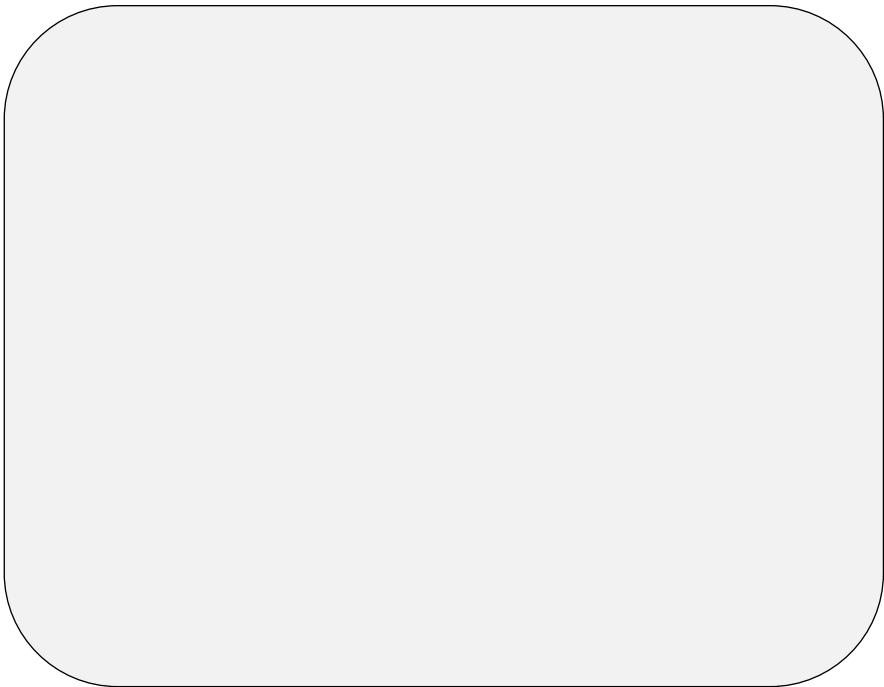
Schedule Network Diagram

Question 74: Scope

Tool	Description
Work Breakdown Structure	A description of the project and the product scope and major deliverables
Work Breakdown Structure Dictionary	A visual example of the work decomposition into work packages
Scope Statement	A matrix containing any additional attributes for each work package (e.g. Resources, Cost, Duration)
Work Package	A piece of work or functionality small enough to be assigned to a person or team
User Story Mapping	Breaks down Features into User Stories as they relate to the customer journey

Question 74: Scope

Tool



Process Groups: A Practice Guide, 2023, p236, “Scope Baseline”

Description

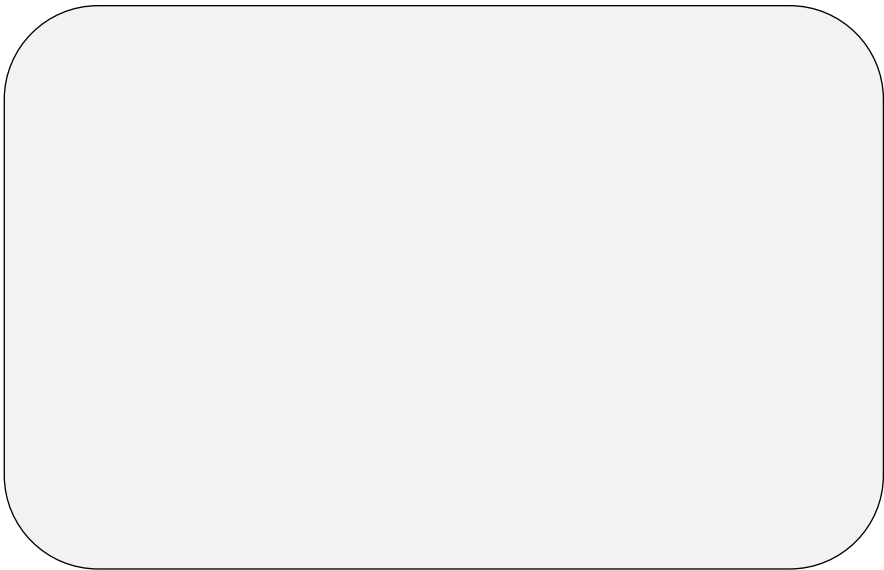
A description of the project and the product scope and major deliverables
Scope Statement
A visual example of the work decomposition into work packages
Work Breakdown Structure
A matrix containing any additional attributes for each work package (e.g. Resources, Cost, Duration)
Work Breakdown Structure Dictionary
A piece of work or functionality small enough to be assigned to a person or team
Work Package
Breaks down Features into User Stories as they relate to the customer journey
User Story Mapping

Question 75: Project Manager Talents

Tool	Description
Power Skills	The Agile, Predictive and Hybrid project processes, ceremonies and tools
Business Acumen	Collaborative leadership, conflict management, team building, effective communication
Ways of Working	Understanding value priorities, making good business decisions and continuous improvement

Question 75: Project Manager Talents

Tool



Process Groups: A Practice Guide, 2023, p58, “Project Manager Competencies”

Description

The Agile, Predictive and Hybrid project processes, ceremonies and tools

Ways of Working

Collaborative leadership, conflict management, team building, effective communication

Power Skills

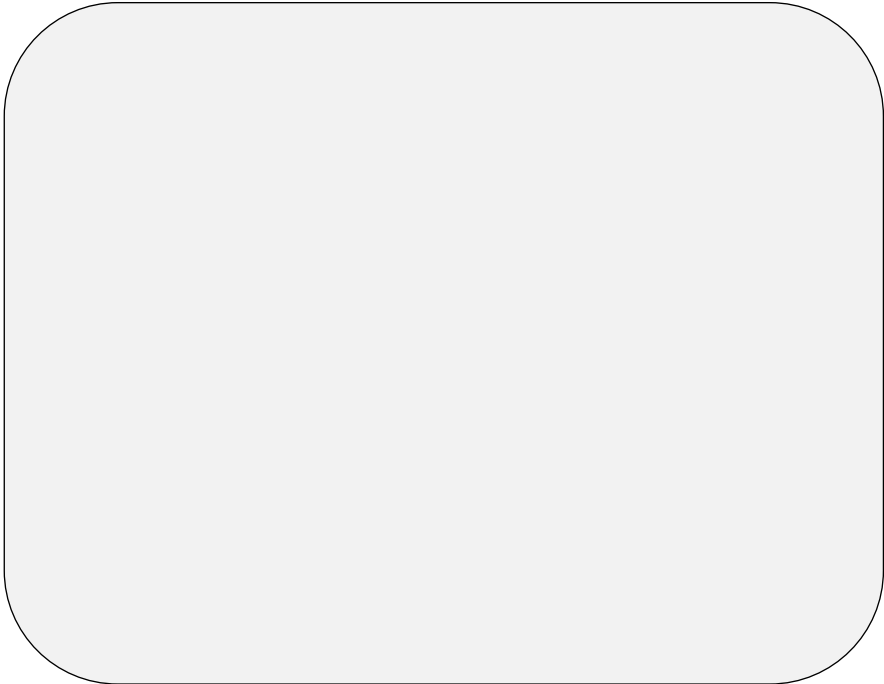
Understanding value priorities, making good business decisions and continuous improvement

Business Acumen

Question 76: Schedule Management

Tool	Description
Milestones	A sequence of activities which make up the shortest possible project duration to completion
Critical Path	The amount of time an activity can be delayed without affecting its successor activity
Free Float	The amount of time an activity can be delayed and still keep the project on schedule
Total Float	The date when major items will occur or be delivered
Project Calendar	The project days that are available for scheduled activities (excluding holidays or other days off)

Question 76: Schedule Management

Tool	Description
	<div>A sequence of activities which make up the shortest possible project duration to completion</div> <div>Critical Path</div>
	<div>The amount of time an activity can be delayed without affecting its successor activity</div> <div>Free Float</div>
	<div>The amount of time an activity can be delayed and still keep the project on schedule</div> <div>Total Float</div>
	<div>The date when major items will occur or be delivered</div> <div>Milestones</div>
	<div>The project days that are available for scheduled activities (excluding holidays or other days off)</div> <div>Project Calendar</div>

Process Groups: A Practice Guide, 2023, p262, “Critical Path Method”

Question 77: Scope Planning

Stage

Create Scope Statement

**Create Scope
Management Plan**

**Create Work Breakdown
Structure**

**Create a List of Work
Packages**

**Create Work Breakdown
Structure Dictionary**

Collect Requirements

Order

First

Second

Third

Fourth

Fifth

Sixth

Question 77: Scope Planning

Stage



Process Groups: A Practice Guide, 2023,
p22, “Process Groups and Management
Phases”

Order

First

**Create Scope
Management Plan**

Second

Collect Requirements

Third

Create Scope Statement

Fourth

**Create Work Breakdown
Structure**

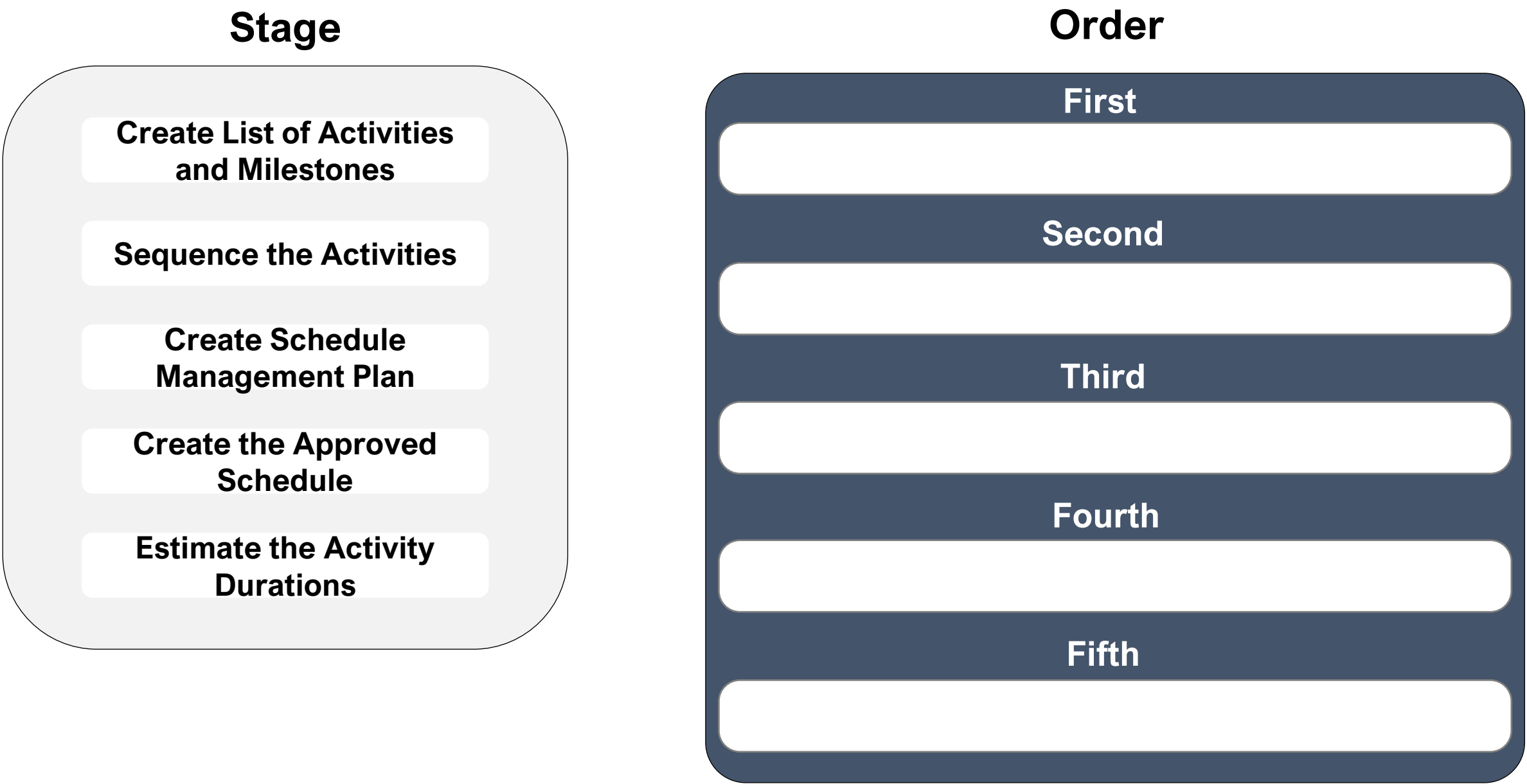
Fifth

**Create Work Breakdown
Structure Dictionary**

Sixth

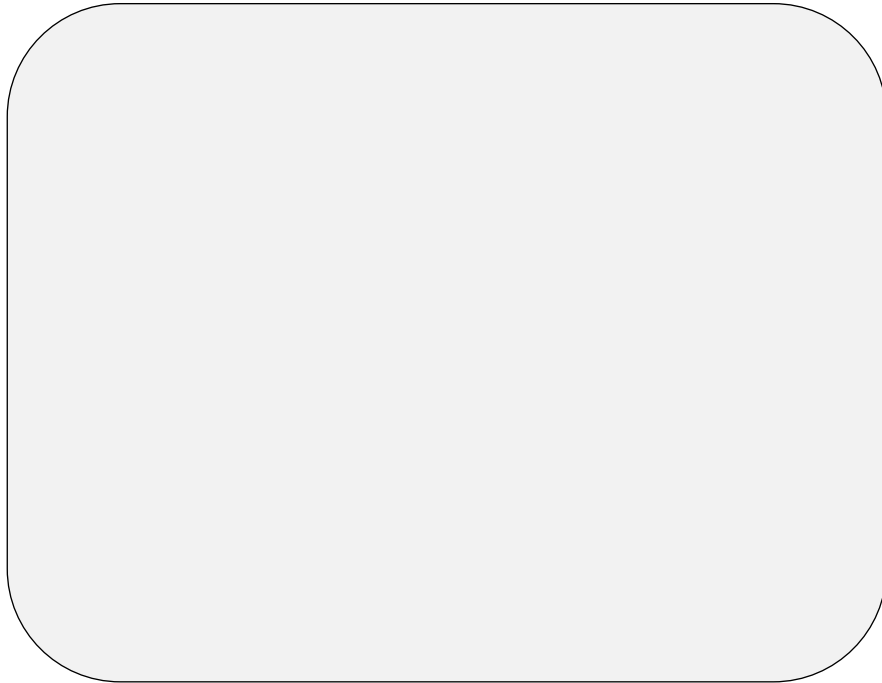
**Create a List of Work
Packages**

Question 78: Schedule Planning



Question 78: Schedule Planning

Stage



PMBOK Guide 7th Edition, 2021,
p58, “Schedules”

Order

First

**Create Schedule
Management Plan**

Second

**Create List of Activities
and Milestones**

Third

Sequence the Activities

Fourth

**Estimate the Activity
Durations**

Fifth

**Create the Approved
Schedule**

Question 79: Project Integration

Stage

Project Charter

Project Management Plan

Business Case

PMIS

Final Report

Order

First

Second

Third

Fourth

Fifth

Question 79: Project Integration

Stage



Process Groups: A Practice Guide, 2023, p288, “Project Management Information System”, 211, “Final Report”

Order

First

Business Case

Second

Project Charter

Third

Project Management Plan

Fourth

PMIS

Fifth

Final Report

Question 80: Variance Analysis

Answer

**Project is ahead of
schedule**

Project is under budget

Project is behind schedule

Project is over budget

Description

CPI is 1.2

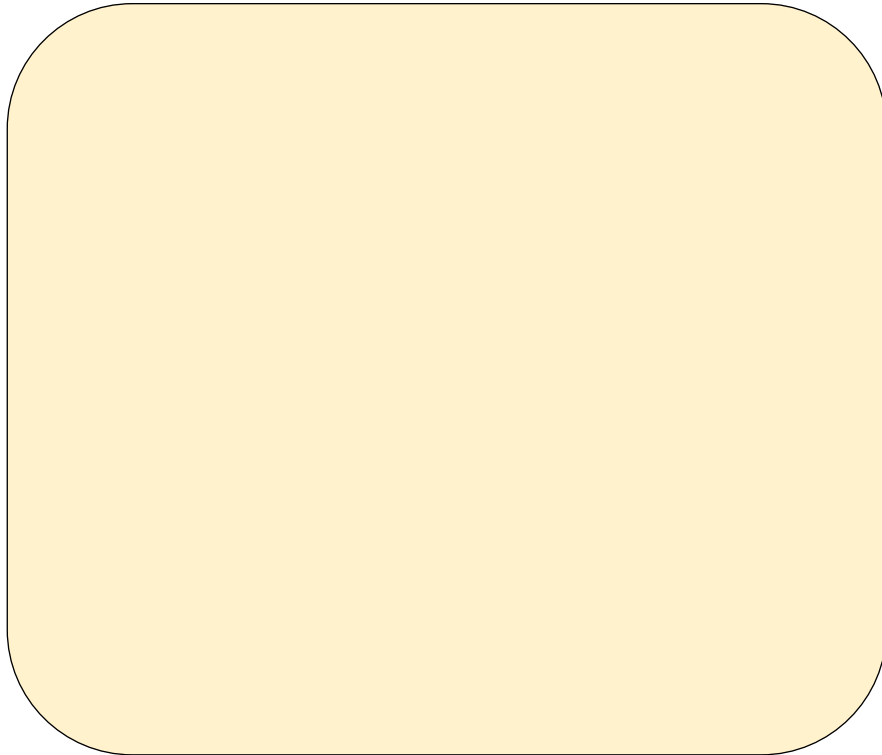
SPI is 0.8

CV is -50

SV is 100

Question 80: Variance Analysis

Answer



Description

CPI is 1.2

Project is under budget

SPI is 0.8

Project is behind schedule

CV is -50

Project is over budget

SV is 100

Project is ahead of schedule

Question 81: Dealing with Complexity

Answer

Prototypes

Experiments

Progressive Elaboration

Simulation

Description

An iterative process of adding greater levels of detail as they become available.

A small, low cost version of the real thing to see if the real thing might work.

Tests of items similar to the real thing in a controlled environment, to identify cause and effect.

Similar scenarios or data used to find insights without doing the real thing.

Question 81: Dealing with Complexity

Answer



PMBOK Guide 7th Edition, 2021,
P120, “Complexity and Ambiguity”

Description

An iterative process of adding greater levels of detail as they become available.

Progressive Elaboration

A small, low cost version of the real thing to see if the real thing might work.

Prototypes

Tests of items similar to the real thing in a controlled environment, to identify cause and effect.

Experiments

Similar scenarios or data used to find insights without doing the real thing.

Simulation

Question 82: Tailoring Scenarios

Situation

Stakeholders not engaged

High rates of scrap

**Team members unsure of
how to undertake work**

Long Delays for Approvals

Approach

Use Value Stream Mapping and Kanban Boards to visualize the work, identify and track issues.

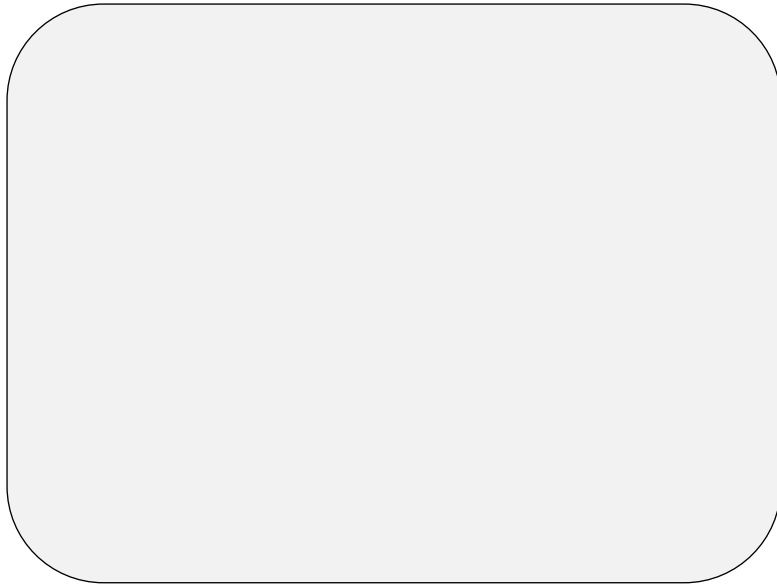
Streamline approval decisions through fewer people, up to certain value thresholds

Use feedback loops, check whether sufficient information is being shared

Add more guidance, training and verification steps.

Question 82: Tailoring Scenarios

Situation



PMBOK Guide 7th Edition, 2021,
p151, “Tailoring Suggestion”

Approach

Use Value Stream Mapping and Kanban Boards to visualize the work, identify and track issues.

High rates of scrap

Streamline approval decisions through fewer people, up to certain value thresholds

Long Delays for Approvals

Use feedback loops, check whether sufficient information is being shared

Stakeholders not engaged

Add more guidance, training and verification steps.

Team members unsure of how to undertake work

Question 83: Tuckman's Ladder

Stage

Forming

Storming

Norming

Performing

Adjourning

Description

Team members are getting acquainted, establishing ground rules and forming initial impressions

Team members are building relationships, resolving conflicts and working together as a team

Team members are disagreeing over roles and responsibilities creating collaboration challenges

The team complete their tasks, reflect on their achievements and transition out of their roles

The team is operating efficiently, leveraging strong collaboration to achieve high levels of productivity

Question 83: Tuckman's Ladder

Stage



PMBOK Guide 7th Edition, 2021,
P166, "Tuckman Ladder"

Description

Team members are getting acquainted, establishing ground rules and forming initial impressions

Forming

Team members are building relationships, resolving conflicts and working together as a team

Norming

Team members are disagreeing over roles and responsibilities creating collaboration challenges

Storming

The team complete their tasks, reflect on their achievements and transition out of their roles

Adjourning

The team is operating efficiently, leveraging strong collaboration to achieve high levels of productivity

Performing

Question 84: Artifact Scenarios

Answer

Project Charter

Project Management Plan

Business Case

**Stakeholder Management
Plan**

Description

Ken would like to transition the company to a new CRM and needs to evaluate the benefit, costs and risks to secure approval

Mary has received approval to develop a new software and needs to outline the project scope, stakeholders and roles to formally authorize the project

Tim needs to develop a document defining how his project will be executed, monitored, controlled and closed

Rob is developing strategies for engaging people, managing expectations, and ensuring effective communication throughout the project

Question 84: Artifact Scenarios

Answer



PMBOK Guide 7th Edition, 2021,
P184, “Strategy Artifacts”

Description

Ken would like to transition the company to a new CRM and needs to evaluate the benefit, costs and risks to secure approval

Business Case

Mary has received approval to develop a new software and needs to outline the project scope, stakeholders and roles to formally authorize the project

Project Charter

Tim needs to develop a document defining how his project will be executed, monitored, controlled and closed

Project Management Plan

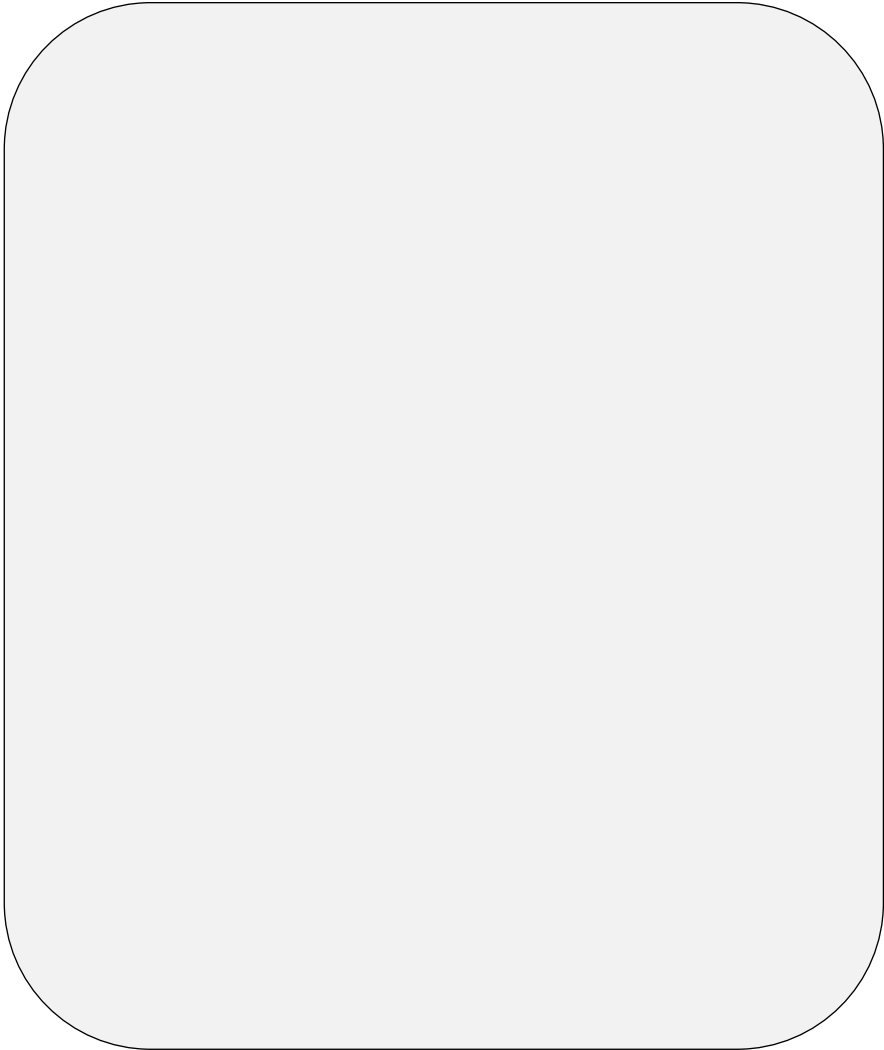
Rob is developing strategies for engaging people, managing expectations, and ensuring effective communication throughout the project

Stakeholder Management Plan

Question 85: Predictive and Adaptive

Tool	Description	
Fixed Scope and Requirements	Predictive	Agile
Adaptive Planning		
Incremental Delivery		
Sequential Phases		
Detailed Planning		
Cross-Functional Teams		

Question 85: Predictive and Adaptive

Tool	Description	
	Predictive	Agile
	Fixed Scope and Requirements	Adaptive Planning
	Sequential Phases	Incremental Delivery
	Detailed Planning	Cross-Functional Teams

Question 86: Predictive and Adaptive

Tool	Description	
Product Backlog	Predictive	Agile
Sprint Backlog		
Work Breakdown Structure (WBS)		
Change Management Plan		
Risk Management Plan		
Burndown Chart		

Question 86: Predictive and Adaptive

Tool	Description	
<div></div>	Predictive	Agile
	Work Breakdown Structure (WBS)	Product Backlog
	Change Management Plan	Sprint Backlog
	Risk Management Plan	Burndown Chart

Question 87: Predictive and Adaptive

Answer	Description
Agile	User Stories
Predictive	Rolling Wave Planning
Hybrid	Work Breakdown Structure (WBS)
All Projects	Project Charter

Question 87: Predictive and Adaptive

Answer

Description

User Stories
Agile
Rolling Wave Planning
Hybrid
Work Breakdown Structure (WBS)
Predictive
Project Charter
All Projects

Question 88: Project Situations

Answer

**Continuous Feedback
Loops**

Information Radiator

Co-Located Teams

Schedule Crashing

Description

The project team has been experiencing communication delays and misunderstandings

The development team is facing issues with frequent rework and misaligned expectations

The project team is struggling with visibility into project progress and status, leading to confusion and delays in addressing issues

The project is falling behind schedule due to unforeseen delays, the team needs to find ways to accelerate the completion of critical tasks

Question 88: Project Situations

Answer



Description

The project team has been experiencing communication delays and misunderstandings

Co-Located Teams

The development team is facing issues with frequent rework and misaligned expectations

**Continuous Feedback
Loops**

The project team is struggling with visibility into project progress and status, leading to confusion and delays in addressing issues

Information Radiator

The project is falling behind schedule due to unforeseen delays, the team needs to find ways to accelerate the completion of critical tasks

Schedule Crashing

Question 89: Project Situations

Answer

Analogous Estimating

Product Roadmap

Retrospective

SWOT Analysis

Description

The team is planning a new project and need to assess what they are good and bad at, to make informed decisions

The project team is struggling with aligning their development efforts and ensuring that they deliver features in a strategic order

After completing several sprints, the team is experiencing recurring issues and inefficiencies that are affecting their performance

The project manager needs to quickly estimate the duration and cost of a new project but lacks detailed information

Question 89: Project Situations

Answer



Description

The team is planning a new project and need to assess what they are good and bad at, to make informed decisions

SWOT Analysis

The project team is struggling with aligning their development efforts and ensuring that they deliver features in a strategic order

Product Roadmap

After completing several sprints, the team is experiencing recurring issues and inefficiencies that are affecting their performance

Retrospective

The project manager needs to quickly estimate the duration and cost of a new project but lacks detailed information

Analogous Estimating

Question 90: Predictive versus Adaptive

Tool	Description	
Scope is Fixed	Predictive	Agile
Scope is Variable		
Scope Management Plan		
Product Backlog		
Epics and User Stories		
Deliverables and Work Packages		

Question 90: Predictive versus Adaptive

Tool	Description	
	Predictive	Agile
	Scope is Fixed	Scope is Variable
	Scope Management Plan	Product Backlog
	Deliverables and Work Packages	Epics and User Stories

Question 91: Predictive versus Adaptive

Item	Development Approach	
	Predictive	Agile
System Documentation		
Product / Sprint Reviews		
Complete Requirements Document		
Close Customer Contact		
Schedule Network Diagram		
Product Roadmap		

Question 91: Predictive versus Adaptive

Item	Development Approach	
	Predictive	Agile
	System Documentation	Product / Sprint Reviews
	Complete Requirements Document	Close Customer Contact
	Schedule Network Diagram	Product Roadmap

Question 92: Process Groups ITTOs

Answer

Critical Path Method

Decomposition

**Schedule Management
Plan**

Leads and Lags

**Precedence Diagramming
Method**

Description

Plan Schedule Management

Sequence Activities

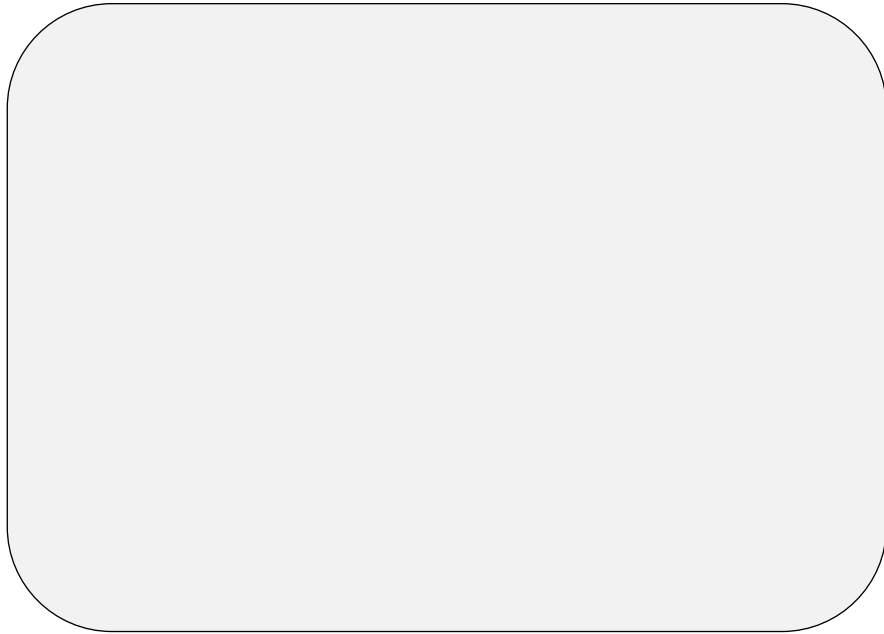
Develop Schedule

Define Activities

Sequence Activities

Question 92: Process Groups ITTOs

Answer



Process Groups: A Practice Guide, 2023,
p89, “Plan Schedule Management”

Description

Plan Schedule Management

**Schedule Management
Plan**

Sequence Activities

Leads and Lags

Develop Schedule

Critical Path Method

Define Activities

Decomposition

Sequence Activities

**Precedence Diagramming
Method**

Question 93: Procurement

Answer

Bidder Conference

Statement of Work

**Independent Cost
Estimates**

Description

A benchmark for our quote prepared by an outside professional estimator

Defines the Scope to be included in the contract and Terms of Reference

Used to ensure that all prospective vendors have a common understanding of the procurement

Question 93: Procurement

Answer



PMBOK Guide 7th Edition, 2021,
P74, “Working with Procurements”

Description

A benchmark for our quote prepared by an outside professional estimator

**Independent Cost
Estimates**

**Defines the Scope to be included in the contract and
Terms of Reference**

Statement of Work

**Used to ensure that all prospective vendors have a
common understanding of the procurement**

Bidder Conference

Question 94: Procurement

Answer

Claims Administration

Source Selection Criteria

Advertising

Description

Used to expand the list of potential sellers and give vendors an opportunity to bid

Contested items in a project, when the buyer and seller cannot reach an agreement on changes

Details on how we choose our vendor including capability, cost and delivery dates

Question 94: Procurement

Answer



Description

Used to expand the list of potential sellers and give vendors an opportunity to bid

Advertising

Contested items in a project, when the buyer and seller cannot reach an agreement on changes

Claims Administration

Details on how we choose our vendor including capability, cost and delivery dates

Source Selection Criteria

Question 95: Process Groups ITTOs

Answer

Estimate Activity Durations

Plan Stakeholder Engagement

Create WBS

Develop Project Charter

Description

Subdividing project deliverables into smaller more manageable components

Finding the number of work periods needed to complete individual activities with estimated resources

Developing approaches to involve project stakeholders based on their needs and expectations on the project

Developing the document that formally authorizes the project

Question 95: Process Groups ITTOs

Answer



Description

Subdividing project deliverables into smaller more manageable components

Create WBS

Finding the number of work periods needed to complete individual activities with estimated resources

**Estimate Activity
Durations**

Developing approaches to involve project stakeholders based on their needs and expectations on the project

**Plan Stakeholder
Engagement**

Developing the document that formally authorizes the project

Develop Project Charter

Question 96: Risk Parameters

Answer

Detectability

Urgency

Dormancy

Connectivity

Description

The period of time we need to respond to the risk in for it to be effective

The ease with which the results of the risk can be recognized

The period to time between the risk occurring and when we might discover it

How related the risk is to other project risks

Question 96: Risk Parameters

Answer



Process Groups: A Practice Guide, 2023, p247, “Assessment of other risk factors”

Description

- The period of time we need to respond to the risk in for it to be effective

Urgency
- The ease with which the results of the risk can be recognized

Detectability
- The period to time between the risk occurring and when we might discover it

Dormancy
- How related the risk is to other project risks

Connectivity

Question 97: Agile Scenarios

Answer

Inaccurate Estimation

Unclear team progress

Too many defects

Technical Debt

Description

Consider pair work, shoulder checks or code inspections, Test Driven Development and workshop the DoD.

Reduce User Story size and estimate with the people doing the work.

Build in a “Slack” card to refactor code and ensure developers are part of user story creation.

Use a Kanban board to see the work and daily stand-ups to report blockers and micro-commit.

Question 97: Agile Scenarios

Answer



Agile Practice Guide, 2017
p58, “Agile Pain Points and Troubleshooting”

Description

Consider pair work, shoulder checks or code inspections, Test Driven Development and workshop the DoD.

Too many defects

Reduce User Story size and estimate with the people doing the work.

Inaccurate Estimation

Build in a “Slack” card to refactor code and ensure developers are part of user story creation.

Technical Debt

Use a Kanban board to see the work and daily stand-ups to report blockers and micro-commit.

Unclear team progress

Question 98: Project Process Groups

Stage	Description
Executing	<p>The team is successfully defining project goals, securing stakeholder buy-in, and creating a project charter</p>
Monitoring & Controlling	<p>The team is working diligently to develop a detailed schedule, allocate resources, and define the project scope</p>
Initiating	<p>The team is actively working on completing deliverables, coordinating team activities, and managing resources objectives</p>
Planning	<p>The manager is tracking progress against the project plan, measuring performance, and making adjustments</p>
Closing	<p>The project team has completed all deliverables, reviewed the project outcomes, and is now finalizing documentation</p>

Question 98: Project Process Groups

Stage



PMBOK Guide 7th Edition, 2021,
P171, “Process Groups”

Description

The team is successfully defining project goals, securing stakeholder buy-in, and creating a project charter

Initiating

The team is working diligently to develop a detailed schedule, allocate resources, and define the project scope

Planning

The team is actively working on completing deliverables, coordinating team activities, and managing resources

Executing

The manager is tracking progress against the project plan, measuring performance, and making adjustments

Monitoring & Controlling

The project team has completed all deliverables, reviewed the project outcomes, and is now finalizing documentation

Closing

Question 99: Agile Scenarios

Answer

No improvement in team process

Siloed teams or people

Work not complete within Sprints

Team struggles with obstacles

Description

Reduce User Story size, define the Definition of Done

Ensure the servant leader / scrum master escalates, problem-solves or clears these obstacles.

Hold retrospectives regularly with no more than three action items for next time

Work with managers of external resources to dedicate them to the team

Question 99: Agile Scenarios

Answer



Agile Practice Guide, 2017
p59, “Agile Pain Points and Troubleshooting”

Description

Reduce User Story size, define the Definition of Done

Work not complete within Sprints

Ensure the servant leader / scrum master escalates, problem-solves or clears these obstacles.

Team struggles with obstacles

Hold retrospectives regularly with no more than three action items for next time

No improvement in team process

Work with managers of external resources to dedicate them to the team

Siloed teams or people

Question 100: Risks, Issues & Change

Answer

Change Log

Assumption Log

Issue Log

Risk Register

Description

Billy wants to add a feature to project delivery and the Scope is already baselined.

One of the resources has been delayed, which is now impacting the project schedule

The receiving organization tells you of a regulatory change impacting scope, that could happen in the future

The team have estimated the activity durations, but noted they are only accurate with their current expertise

Question 100: Risks, Issues & Change

Answer



PMBOK Guide 7th Edition, 2021,
P185, “Logs and Registrars”

Description

Billy wants to add a feature to project delivery and the Scope is already baselined.
Change Log
One of the resources has been delayed, which is now impacting the project schedule
Issue Log
The receiving organization tells you of a regulatory change impacting scope, that could happen in the future
Risk Register
The team have estimated the activity durations, but noted they are only accurate with their current expertise
Assumption Log

Question 101: Checking Outcomes

Answer

**Stakeholders disagree
with project objectives**

Dissatisfied Stakeholders

High-performing team

**Leadership from all
members**

Description

**Significant number of changes to the project
requirements and scope**

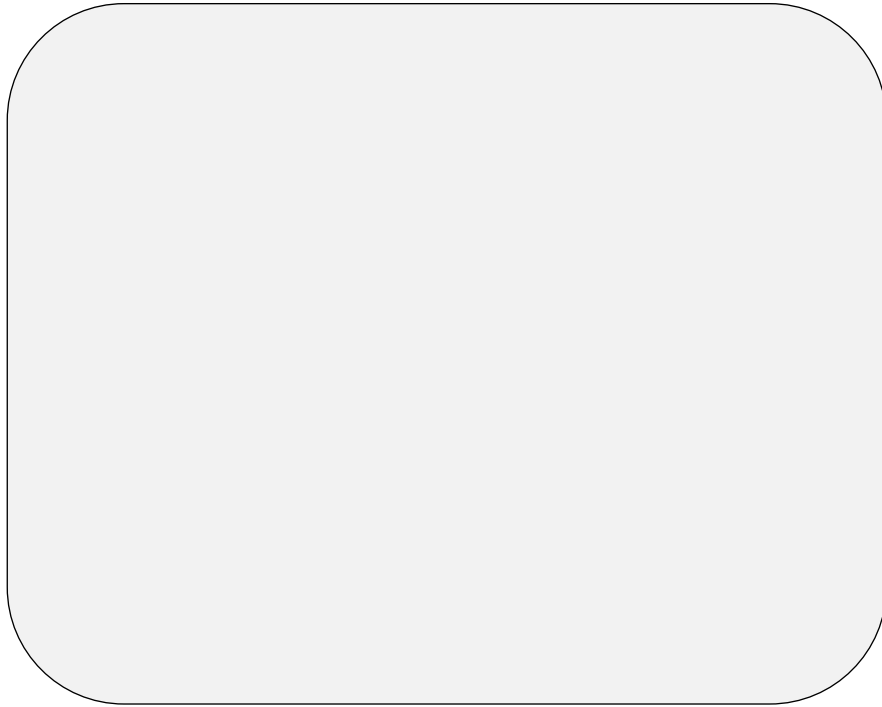
**Review the Issue Register for individual stakeholder
challenges, use surveys and interviews**

**Project team apply critical thinking and interpersonal
skills**

**The project team adapts to changing situations and is
resilient in the face of challenges**

Question 101: Checking Outcomes

Answer



PMBOK Guide 7th Edition, 2021,
p15, “Checking Results - Stakeholder”
p31, “Checking Results – Team”

Description

Significant number of changes to the project requirements and scope

Stakeholders disagree with project objectives

Review the Issue Register for individual stakeholder challenges, use surveys and interviews

Dissatisfied Stakeholders

Project team apply critical thinking and interpersonal skills

Leadership from all members

The project team adapts to changing situations and is resilient in the face of challenges

High-performing team

Question 102: Agile and Predictive Change

Answer

**Information Radiator
updated**

Change in Adaptive

**Communications
Management Plan**

Change in Predictive

Description

**A Product Owner reprioritizes the Product Backlog and
adjusts the Product Roadmap**

**A change request is logged as per the process in the
Change Management Plan**

Project scope changes updated in an Adaptive project

**Changes communicated to the correct stakeholders in the
ways they prefer**

Question 102: Agile and Predictive Change

Answer



Description

A Product Owner reprioritizes the Product Backlog and adjusts the Product Roadmap

Change in Adaptive

A change request is logged as per the process in the Change Management Plan

Change in Predictive

Project scope changes updated in an Adaptive project

Information Radiator updated

Changes communicated to the correct stakeholders in the ways they prefer

Communications Management Plan

Question 103: Project Scenarios

Answer

**Business Case and
Benefits Management Plan**

Sprint Reviews

Project Charter

**Product Backlog and User
Stories**

Description

Is the project supported by the organization and allowed the resources to proceed?

Is the project on track to realize the intended outcomes in the timeframe they were planned?

Does the adaptive project team understand the product requirements?

Do stakeholders accept and are satisfied with project deliverables?

Question 103: Project Scenarios

Answer

Description

Is the project supported by the organization and allowed the resources to proceed?

Project Charter

Is the project on track to realize the intended outcomes in the timeframe they were planned?

Business Case and
Benefits Management Plan

Does the adaptive project team understand the product requirements?

Product Backlog and User
Stories

Do stakeholders accept and are satisfied with project deliverables?

Sprint Reviews

Question 104: Stakeholder Measures

Answer

Low Team Morale

Mood Chart

Net Promoter Score

Surveys

Description

Asking project team members to rate their agreement with statements such as “I feel my work contributes to the overall outcomes.”

High rates of unplanned team turnover

Measure the degree to which a stakeholder or customer is willing to recommend a product to others

Track how stakeholders are feeling using colors, numbers or emojis

Question 104: Stakeholder Measures

Answer



PMBOK Guide 7th Edition, 2021,
p103, “Measures - Stakeholders”

Description

Asking project team members to rate their agreement with statements such as “I feel my work contributes to the overall outcomes.”
Surveys
High rates of unplanned team turnover
Low Team Morale
Measure the degree to which a stakeholder or customer is willing to recommend a product to others
Net Promoter Score
Track how stakeholders are feeling using colors, numbers or emojis
Mood Chart

Question 105: Uncertainty

Answer

Risk

Ambiguity

Complexity

Volatility

Description

Many interconnected influences that behave in diverse ways. Reframe or disconnect parts of the system.

An event that, if it occurs, has a positive or negative effect on one or more project objectives.

The possibility for rapid and unpredictable change. Use alternatives and reserves.

A state of being unclear or having difficulty identifying the underlying cause of events. Use prototypes and experiments.

Question 105: Uncertainty

Answer



PMBOK Guide 7th Edition, 2021,
P119 - 122, “Uncertainty”

Description

**Many interconnected influences that behave in diverse ways.
Reframe or disconnect parts of the system.**

Complexity

**An event that, if it occurs, has a positive or negative effect on
one or more project objectives.**

Risk

**The possibility for rapid and unpredictable change. Use
alternatives and reserves.**

Volatility

**A state of being unclear or having difficulty identifying the
underlying cause of events. Use prototypes and experiments.**

Ambiguity

Question 106: Estimate Ranges

Answer	Description
-10% to +25%	Rough Order of Magnitude (ROM)
-5% to +10%	Preliminary Estimate
-25% to +75%	Budget Estimate
0%	Definitive Estimate
-15% to +50%	Final Estimate

Question 106: Estimate Ranges

Answer

Description		
Rough Order of Magnitude (ROM)		
-25% to +75%		
Preliminary Estimate		
-15% to +50%		
Budget Estimate		
-10% to +25%		
Definitive Estimate		
-5% to +10%		
Final Estimate		
David McLachlan	0%	214

Question 107: Adaptive versus Predictive

Answer

Variable Cost

Fixed Cost

Servant Leadership

Directing Leadership

Prefer written communication

Prefer face-to-face communication

Requirements defined at beginning

Requirements progressively elaborated

Description

Predictive	Agile

Question 107: Adaptive versus Predictive

Answer



Description

Predictive	Agile
Variable Cost	Fixed Cost
Directing Leadership	Servant Leadership
Prefer written communication	Prefer face-to-face communication
Requirements defined at beginning	Requirements progressively elaborated

Question 108: Risk

Answer

Identify Risk

Plan Risk Responses

Plan Risk Management

Perform Quantitative Risk Analysis

Description

Ben is numerically analyzing the effect of uncertainty on the project objectives

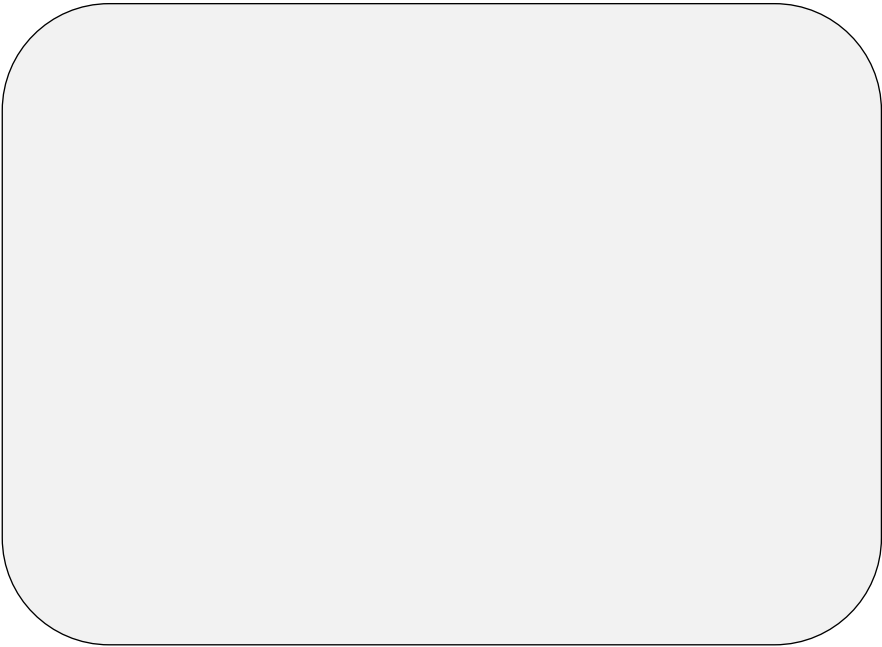
Michael is defining the degree, type, and visibility of risk management activities for the project

Sarah is finding and categorizing individual project risks as well as sources of overall project risk

Isabel is developing options and selecting strategies to address project risk exposure

Question 108: Risk

Answer



Process Groups: A Practice Guide, 2023, p113, “Plan Risk Management”

Description

Ben is numerically analyzing the effect of uncertainty on the project objectives

Perform Quantitative Risk Analysis

Michael is defining the degree, type, and visibility of risk management activities for the project

Plan Risk Management

Sarah is finding and categorizing individual project risks as well as sources of overall project risk

Identify Risk

Isabel is developing options and selecting strategies to address project risk exposure

Plan Risk Responses

Question 109: Critical Path

Answer

Fast Tracking

Schedule Crashing

Lag Time

Lead Time

Description

Task B is on the Critical Path and is delayed by 3 days

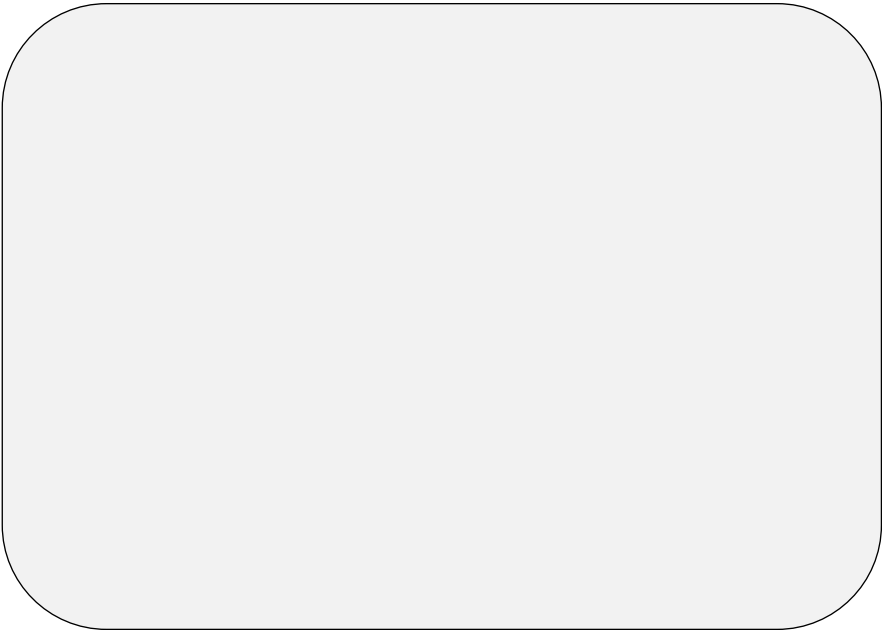
Task D is on the Critical Path and has 2 days of available float

Task A and B are performed in sequence but can be done in parallel

The team bring Task C forward to start it while Task D is still being worked on

Question 109: Critical Path

Answer



Process Groups: A Practice Guide, 2023, p262, “Critical Path Method”

Description

Task B is on the Critical Path and is delayed by 3 days
Schedule Crashing
Task D is on the Critical Path and has 2 days of available float
Lag Time
Task A and B are performed in sequence but can be done in parallel
Fast Tracking
The team bring Task C forward to start it while Task D is still being worked on
Lead Time

Question 110: Scope and Quality

Answer

Validate Scope

Control Scope

Control Quality

**Perform Integrated
Change Control**

Description

Ensures the project outputs are complete, correct, and meet customer expectations

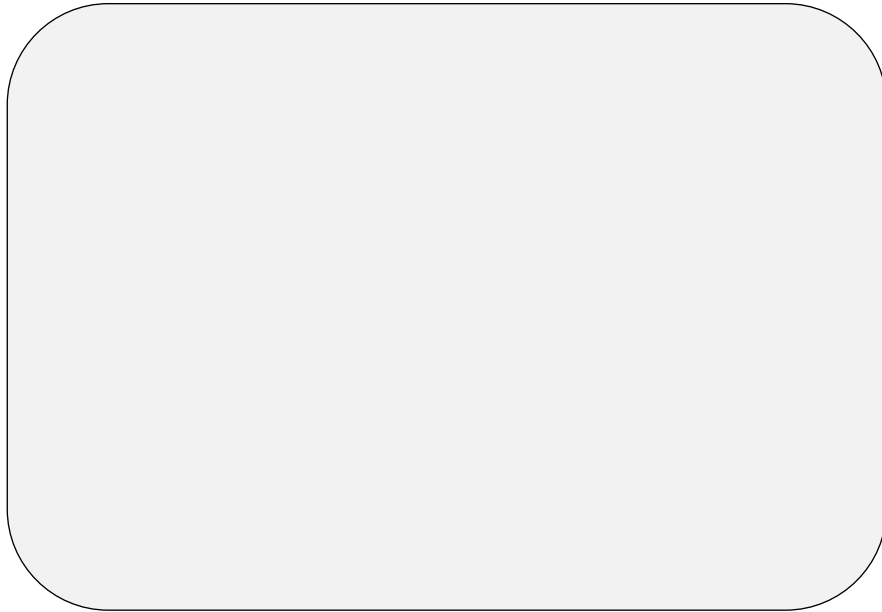
The formal acceptance of the project deliverables

The process of reviewing and approving changes to deliverables and project documents

Monitors the status of the project scope and manages changes to the scope baseline

Question 110: Scope and Quality

Answer



Process Groups: A Practice Guide, 2023, p165, “Perform Integrated Change Control”

Description

Ensures the project outputs are complete, correct, and meet customer expectations

Control Quality

The formal acceptance of the project deliverables

Validate Scope

The process of reviewing and approving changes to deliverables and project documents

Perform Integrated Change Control


Monitors the status of the project scope and manages changes to the scope baseline

Control Scope

Question 111: Team Personality Assessment

Tool	Description
Enjoys social interaction	Introversion (I)
Prefers solitary activities	Extraversion (E)
Use their senses to determine reality	Sensing (S)
Use intuition to find patterns	Intuition (N)
Are logical and impersonal	Thinking (T)
Focus on feelings and emotions	Feeling (F)
Judge with firm fast decisions	Judging (J)
Perceive with a flexible and adaptable approach	Perceiving (P)

Question 111: Team Personality Assessment

Tool	Description	
	Introversion (I)	Extraversion (E)
	Prefers solitary activities	Enjoys social interaction
	Sensing (S)	Intuition (N)
	Use their senses to determine reality	Use intuition to find patterns
	Thinking (T)	Feeling (F)
	Are logical and impersonal	Focus on feelings and emotions
	Judging (J)	Perceiving (P)
	Judge with firm fast decisions	Perceive with a flexible and adaptable approach