CompTIA Project+ Study Guide

Project Management Frameworks

Abbreviation	Meaning
PMBOK	Project Management Body of Knowledge
PMI	Project Management Institute
WBS	Work Breakdown Structure
PERT	Program Evaluation and Review Technique
CPM	Critical Path Method
Agile	(Not an acronym) A project management approach that focuses on iterative development, customer collaboration, and adapting to change.
Scrum	(Not an acronym) An Agile framework that uses sprints (short, time-boxed periods) to complete work and focuses on team collaboration.
Lean	(Not an acronym) A methodology to minimize waste and maximize value in a process.
Kanban	(Not an acronym) A visual workflow framework that uses a board with columns to manage tasks and show progress.
RACI	Responsible, Accountable, Consulted, Informed
Waterfall	A traditional, sequential project management approach where each phase (e.g., planning, execution) is completed before the next one begins.

Project Planning & Documents

Abbreviation	Meaning
SOW	Statement of Work: A formal document that defines the project-specific activities, deliverables, and timeline for a vendor or contractor.
BRD	Business Requirements Document
KPI	Key Performance Indicator
SLA	Service Level Agreement
MoSCoW	Must have, Should have, Could have, Won't have
SWOT	Strengths, Weaknesses, Opportunities, Threats

Project Cost, Schedule, & Risk

Abbreviation	Meaning
EVM	Earned Value Management: A technique to measure project performance by integrating scope, schedule, and cost data.
ETC	Estimate to Complete
EAC	Estimate at Completion
BAC	Budget at Completion
AC	Actual Cost
EV	Earned Value
PV	Planned Value
CPI	Cost Performance Index
SPI	Schedule Performance Index
IRR	Internal Rate of Return
NPV	Net Present Value
ROI	Return on Investment
TCO	Total Cost of Ownership
PERT	Program Evaluation Review Technique (again- also used in cost/schedule)

Key Project Management Formulas

Formula	Description
Cost Variance (CV) = EV - AC	Measures the difference between the earned value and the actual cost. A negative number indicates a cost overrun.
Schedule Variance (SV) = EV - PV	Measures the difference between the earned value and the planned value. A negative number indicates a schedule delay.
Cost Performance Index (CPI) = EV / AC	Measures the efficiency of the project's budget. A CPI less than 1 indicates the project is over budget.
Schedule Performance Index (SPI) = EV / PV	Measures the efficiency of the project's schedule. An SPI less than 1 indicates the project is behind schedule.
Estimate at Completion (EAC) = BAC / CPI	Predicts the final project cost based on current performance.

Teams, Communication & Stakeholders

Abbreviation	Meaning
SME	Subject Matter Expert: A person with deep knowledge in a specific area.
QA	Quality Assurance: A process-oriented activity focused on preventing defects.
QC	Quality Control: A product-oriented activity focused on identifying and fixing defects.
OPA	Organizational Process Assets
EEF	Enterprise Environmental Factors

Technology & Tools

Abbreviation	Meaning
RFP	Request for Proposal
RFQ	Request for Quote
ROI	Return on Investment
RAID	Risks, Assumptions, Issues, Dependencies
CRUD	Create, Read, Update, Delete
SaaS	Software as a Service
PaaS	Platform as a Service
IaaS	Infrastructure as a Service
PMO	Project Management Office: A department that defines and maintains project management standards within an organization.

Security & Compliance

Abbreviation	Meaning
GDPR	General Data Protection Regulation
HIPAA	Health Insurance Portability and Accountability Act
NIST	National Institute of Standards and Technology
SOX	Sarbanes-Oxley Act

Documents by Project Stage

1. Initiation Phase

Document	Purpose
Business Case	Justifies the project; explains expected value, ROI, and strategic alignment.
Feasibility Study	Evaluates whether the project is technically, financially, and legally viable.
Project Charter	Officially authorizes the project; defines high-level scope, objectives, stakeholders, and PM authority.
Stakeholder Register	Lists all stakeholders, their interests, influence, and engagement strategy. This document is created during this phase.

2. Planning Phase

Document	Purpose
Project Management Plan	Master plan covering all aspects like scope, schedule, cost, quality, communication, risk, procurement, etc.
Scope Statement / Scope Doc	Defines what's in and out of scope, deliverables, constraints, and assumptions.
Work Breakdown Structure (WBS)	A deliverable-oriented, hierarchical decomposition of the project into smaller tasks or work packages.
Schedule / Gantt Chart	Lays out task timelines, dependencies, and milestones.
Resource Plan	Details people, tools, and equipment needed.
Budget / Cost Management Plan	Defines project costs, estimates, and control methods.
Communication Plan	Describes how and when information will be shared.
Risk Management Plan	Identifies risks, risk owners, mitigation strategies.
Quality Management Plan	Defines quality standards and how to achieve/measure them.
Procurement Plan	Outlines how goods/services will be acquired.
Change Management Plan	Establishes the process for handling scope or schedule changes.

3. Execution Phase

Document	Purpose
Work Performance Data	Raw execution data (e.g., task progress, time, costs).
Meeting Minutes	Summarizes discussions and action items.
Issue Log	Tracks project issues, their status, and resolutions.
Change Requests / Change Log	Documents requested or approved project changes.
Procurement Contracts	Agreements with vendors/suppliers.
Deliverable Acceptance Docs	Confirms that completed deliverables meet requirements.

4. Monitoring & Controlling Phase

Document	Purpose
Performance Reports	Reports on project status (e.g., schedule, budget, quality).
Risk Register (Updated)	Tracks ongoing risks and response effectiveness.
Change Log (Updated)	Records approved/denied changes and their impacts.
Quality Audit Reports	Ensures adherence to quality standards.
Forecasts (EAC, ETC)	Predicts future performance based on current data.
Variance Reports (e.g., CPI, SPI)	Show deviations from baseline plans.

5. Closing Phase

Document	Purpose
Final Project Report	Summarizes outcomes, performance, lessons learned.
Lessons Learned Register	Captures insights and recommendations for future projects.
Final Deliverables Sign-Off	Customer or sponsor formally accepts the work.
Closure Checklist	Ensures all tasks, documents, and contracts are completed.
Contract Closure Docs	Confirms all procurement terms are fulfilled.
Archive / Knowledge Transfer Docs	Stores project assets for future use.

Project+ Chart & Diagram Types

Chart / Diagram	Purpose / What It Shows
Gantt Chart	Visual timeline of tasks across a project; shows start/end dates, task durations, and dependencies.
PERT Chart	Shows task dependencies and time estimates (Optimistic, Pessimistic, Most Likely); used to estimate overall project duration.
Network Diagram	Visualizes task sequences and dependencies (used for critical path analysis).
Critical Path Diagram	Highlights the longest path of dependent tasks that determines the shortest possible project duration. Any delay to a task on this path will delay the entire project.
Work Breakdown Structure (WBS)	A hierarchical decomposition of project deliverables into smaller, manageable tasks.
RACI Matrix	A responsibility assignment matrix showing who is Responsible, Accountable, Consulted, and Informed for tasks.
Risk Register	A document or table, often visualized, listing identified risks, their severity, probability, mitigation plans, and owners.
Issue Log	A table or document tracking project issues, their status, and resolutions.
Burndown Chart	Used in Agile to show remaining work over time in a sprint or project.
Histogram	Visualizes distribution of data, e.g., resource usage or task durations.
Pareto Chart	A bar chart + line graph combo showing causes of problems in descending order; used for identifying the most significant issues (80/20 Rule).

Fishbone Diagram (Ishikawa)	Used to identify the root causes of problems by categorizing potential sources of failure.
Flowchart	Illustrates sequential steps in a process or system. Helps define workflows and process logic.
Scatter Diagram	Shows correlation between two variables (e.g., testing defects over time).
Run Chart	Displays data points over time to show trends or patterns in a process.
Control Chart	Used in quality management to monitor process stability and variation over time.
Resource Histogram	A bar chart showing resource usage over time (helps spot under/overutilization).
Organizational Chart	A hierarchical diagram showing team structure and reporting relationships.

The Change Control Process

The change control process is a formal procedure to manage changes to a project's baseline.	
Change Request Submission:	A formal request for a change is submitted, often with a change request form.
Impact Analysis:	The project manager and team evaluate the impact of the change on the project's scope, schedule, and budget.
Approval/Rejection:	A Change Control Board (CCB) or the project sponsor reviews the request and either approves or rejects it.
Implementation:	If approved, the project plan is updated, and the change is implemented.
Verification:	The implemented change is verified to ensure it was done correctly.