

UNIT-3 : Project Management Features & Agile Project Management

**Subject: Project Management (RGPV) - Detailed Notes In
Easy Way**

1. Risk Analysis

Definition

Risk Analysis is the process of identifying, evaluating, and managing possible problems that may negatively affect a project.

Easy Introduction

Every project has some uncertainty.

Example:

- software bug
- server crash
- delay in delivery
- budget increase
- worker shortage

These uncertain problems are called **Risks**.

Risk analysis helps us:

- identify risk

✔ measure risk

✔ reduce risk

Why This Topic is Important

In Real Life

Companies use risk analysis to:

- avoid project failure
- reduce losses
- improve planning

In Exams

★ Most repeated topic

🔥 Frequently asked in RGPV

🎯 Important for 7-mark and 14-mark answers

Detailed Explanation

Risk analysis includes:

Step	Meaning
Risk Identification	Finding possible risks
Risk Assessment	Measuring risk impact
Risk Prioritization	Selecting important risks
Risk Mitigation	Reducing risk
Risk Monitoring	Tracking risks continuously

Types of Risks

Type	Meaning
Technical Risk	Technology failure
Financial Risk	Budget problems
Schedule Risk	Delay in completion
Operational Risk	Management issues
Market Risk	Demand changes
Legal Risk	Law-related issues

Step-by-Step Working

Step 1: Identify Risk

Find possible project problems.

Step 2: Analyze Risk

Check probability and impact.

Step 3: Prioritize Risk

Select most dangerous risks.

Step 4: Plan Response

Create prevention strategy.

Step 5: Monitor Risk

Track continuously.

Flow of Process

Risk Identification



Risk Analysis



Risk Prioritization



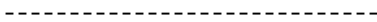
Risk Mitigation



Risk Monitoring

Diagram

Project



Technical Financial Schedule Market

Example

Example: Website Project

Possible risks:

- hosting failure
 - payment gateway issue
 - cyber attack
 - deadline delay
-

Real-Life Analogy

Suppose you travel during rainy season.

Possible risks:

- traffic
- flood
- vehicle breakdown

So you:

- carry umbrella
- leave early
- keep backup plan

This is risk analysis.

Advantages

- Reduces project failure
 - Improves planning
 - Better decision making
 - Cost saving
 - Increases project success
-

Disadvantages

- Time-consuming
 - Difficult prediction
 - Requires experience
-

Applications

- Software development
- Banking

- Construction
 - Business startups
 - Manufacturing
-

Important Keywords for Exam

- Risk Identification
 - Risk Mitigation
 - Probability
 - Uncertainty
 - Risk Assessment
 - Contingency Planning
-

Conclusion

Risk analysis is important for identifying and controlling project uncertainties before they become serious problems.

2. Project Control

Definition

Project Control is the process of monitoring project activities and taking corrective actions to ensure project goals are achieved.

Easy Introduction

Project planning alone is not enough.

Manager must continuously check:

- Is work going correctly?
- Is project on time?
- Is budget controlled?
- Is quality maintained?

This monitoring process is called project control.

Why This Topic is Important

Project control helps:

- avoid delays
 - maintain quality
 - control cost
 - improve performance
-

Detailed Explanation

Project control includes:

- schedule control
 - quality control
 - budget control
 - resource control
-

Steps in Project Control

Step 1: Set Standards

Define expected performance.

Step 2: Monitor Performance

Track actual progress.

Step 3: Compare Results

Compare planned vs actual.

Step 4: Correct Problems

Take corrective action.

Flow of Process

Planning



Monitoring



Comparison



Corrective Action



Project Success

Diagram

Planned Work → Actual Work → Comparison → Correction

Example

Suppose project should complete in 30 days.

But after 15 days only 20% work completed.

Manager:

- adds workers
- increases work hours

This is project control.

Advantages

- Better monitoring
 - Reduces delay
 - Improves quality
 - Budget management
-

Disadvantages

- Continuous effort required
 - Complex for large projects
-

Applications

- Software projects
 - Manufacturing
 - Construction
 - Event management
-

Important Keywords

- Monitoring
- Corrective Action
- Performance Measurement
- Schedule Control

- Budget Control
-

Conclusion

Project control ensures project activities remain aligned with project objectives and deadlines.

3. Project Audit

Definition

Project Audit is the systematic examination of a project to evaluate its performance, progress, quality, and management effectiveness.

Easy Introduction

Project audit checks:

- Is project running correctly?
- Are resources properly used?
- Is quality maintained?
- Are objectives achieved?

It is like project inspection.

Why It Is Needed

Project audit helps:

- detect mistakes
- improve performance
- identify weaknesses
- ensure accountability

Types of Project Audit

Type	Meaning
Technical Audit	Technology checking
Financial Audit	Cost checking
Management Audit	Management performance
Compliance Audit	Rule checking

Step-by-Step Working

Step 1: Collect Data

Gather project information.

Step 2: Analyze Performance

Study project progress.

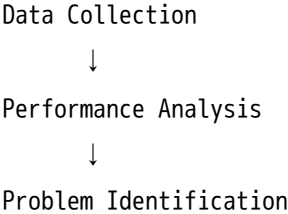
Step 3: Identify Problems

Find weaknesses.

Step 4: Suggest Improvements

Recommend corrective actions.

Flowchart





Recommendations

Diagram

Project Audit





Quality

Cost

Performance

Advantages

- Improves efficiency
 - Detects errors
 - Better accountability
 - Enhances quality
-

Disadvantages

- Time-consuming
 - Requires experts
-

Applications

- Government projects
- IT projects
- Construction
- Banking

Important Keywords

- Audit
 - Evaluation
 - Inspection
 - Compliance
 - Accountability
-

Conclusion

Project audit improves project quality and performance through systematic evaluation.

4. Project Termination

Definition

Project Termination is the process of formally closing a project after completion or cancellation.

Easy Introduction

Every project eventually ends.

Project may terminate because:

- objectives achieved
 - failure occurred
 - budget exhausted
 - technology outdated
-

Types of Project Termination

Type	Meaning
Normal Termination	Successful completion
Premature Termination	Project failure
Perpetual Termination	Project continues indefinitely
Integration Termination	Project absorbed into company

Steps of Project Termination

1. Final project review
2. Documentation completion
3. Resource release
4. Final reporting
5. Client approval

Flow of Process

Project Completion



Final Review



Documentation



Resource Release



Project Closure

Advantages

- Proper project closure

- Resource release
 - Final evaluation
-

Disadvantages

- Employee uncertainty
 - Resource shifting problems
-

Applications

- Software projects
 - Government projects
 - Construction
-

Important Keywords

- Closure
 - Final Review
 - Project Completion
 - Documentation
 - Resource Release
-

Conclusion

Project termination formally ends project activities after completion or cancellation.

5. Agile Project Management

Definition

Agile Project Management is an iterative and flexible project management approach that focuses on continuous improvement, customer feedback, and quick delivery.

Easy Introduction

Traditional methods follow:

- fixed plan
- fixed process

But modern projects change frequently.

Agile allows:

- ✓ flexibility
 - ✓ fast changes
 - ✓ continuous feedback
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Why Agile is Important

Agile helps:

- deliver faster
 - improve customer satisfaction
 - adapt changes easily
 - reduce risk
-

Agile Principles

1. Customer Satisfaction

Deliver useful product quickly.

2. Welcome Changes

Changes are accepted anytime.

3. Team Collaboration

Strong communication required.

4. Continuous Improvement

Improve regularly.

Agile Process

Requirement



Planning



Development



Testing



Feedback



Improvement

Diagram

Plan → Develop → Test → Review → Improve

Example

Mobile app development:

- build small feature
 - get feedback
 - improve feature
 - release quickly
-

Advantages

- Flexible
 - Faster delivery
 - Better quality
 - Customer involvement
-

Disadvantages

- Difficult documentation
 - Continuous changes possible
 - Requires skilled team
-

Applications

- Software development
 - Startups
 - Web development
 - Mobile apps
-

Important Keywords

- Iterative Development
- Customer Feedback
- Flexibility

- Sprint
 - Collaboration
-

Conclusion

Agile project management is modern, flexible, and customer-focused methodology for managing dynamic projects.

6. Agile Methodologies

Types of Agile Methodologies

Methodology	Meaning
Scrum	Sprint-based development
Kanban	Visual workflow management
Lean	Waste reduction
Extreme Programming (XP)	Fast coding and testing
DevOps	Development + Operations integration

Scrum

Features

- Sprint
 - Product backlog
 - Daily meeting
 - Scrum master
-

Kanban

Uses visual board:

To Do → In Progress → Completed

Lean

Focus:

- remove waste
 - increase efficiency
-

XP

Focus:

- continuous testing
 - pair programming
 - customer involvement
-

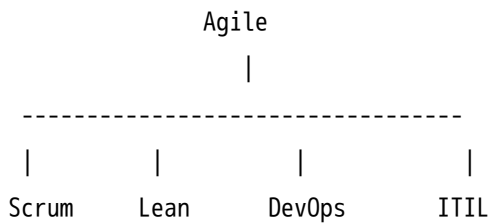
7. Relationship Between Agile, Scrum, Lean, DevOps and ITIL

Comparison Table

Technology	Main Focus
Agile	Flexibility
Scrum	Sprint management
Lean	Waste reduction
DevOps	Fast deployment

Technology	Main Focus
ITIL	IT service management

Relationship Diagram



Easy Explanation

Agile

Overall flexible philosophy.

Scrum

Agile implementation method.

Lean

Removes unnecessary work.

DevOps

Combines development and operations.

ITIL

Manages IT services properly.

Advantages

- Faster development
 - Better collaboration
 - Improved efficiency
 - Better service management
-

Important Keywords

- Sprint
 - Continuous Delivery
 - Waste Reduction
 - Service Management
 - Collaboration
-



MOST IMPORTANT TOPICS

1. Agile Project Management ★★★★★
 2. Risk Analysis ★★★★★
 3. Scrum vs Agile ★★★★★
 4. Project Control ★★★★★
 5. Project Audit ★★★
 6. DevOps & Lean ★★★★★
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MOST IMPORTANT 7-MARK

QUESTIONS

1. Explain Agile Project Management.
2. Explain Risk Analysis with steps.

3. Explain Project Control process.
 4. Explain Scrum methodology.
 5. Explain Project Audit.
 6. Explain Project Termination.
 7. Explain Agile principles.
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MOST IMPORTANT 14-MARK QUESTIONS

1. Explain Agile Project Management in detail.
 2. Explain relationship between Agile, Scrum, Lean, DevOps and ITIL.
 3. Explain Risk Analysis and Project Control.
 4. Explain Project Audit and Project Termination.
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PYQ-BASED EXPECTED QUESTIONS

Very High Probability

- ✓ Agile Project Management
 - ✓ Agile Principles
 - ✓ Scrum
 - ✓ Risk Analysis
-

High Probability

- ✓ Project Control
 - ✓ Lean & DevOps
 - ✓ Project Audit
-

★ Medium Probability

- ✓ ITIL
 - ✓ Project Termination
-

⚡ ONE-NIGHT REVISION NOTES

Topic	Shortcut
Agile	Flexible Development
Scrum	Sprint-Based
Lean	Remove Waste
DevOps	Fast Delivery
ITIL	IT Service Management
Risk Analysis	Identify & Reduce Risk

🧠 MEMORY TRICKS

Agile Components

“SLDI”

- S = Scrum
 - L = Lean
 - D = DevOps
 - I = ITIL
-

Risk Steps

“IAPMM”

- Identify
- Analyze
- Prioritize
- Mitigate
- Monitor

SMART STUDY PLAN

2-Hour Revision Strategy

Time	Topic
30 min	Agile
20 min	Scrum + Lean
20 min	DevOps + ITIL
20 min	Risk Analysis
15 min	Project Control
15 min	Audit + Termination

5-Hour Preparation Strategy

Hour	Study
1	Agile
2	Scrum + Lean
3	DevOps + ITIL
4	Risk Analysis
5	Project Control + Revision

TOPPER ANSWER WRITING TIPS

To Impress Examiner

Always Write:

- ✓ Definition
 - ✓ Diagram
 - ✓ Example
 - ✓ Advantages
 - ✓ Conclusion
-

Underline Keywords

- Agile
 - Sprint
 - Risk Mitigation
 - Audit
 - DevOps
 - Lean
 - ITIL
 - Flexibility
-

Draw These Diagrams

1. Agile Cycle
 2. Scrum Flow
 3. Risk Analysis Flowchart
 4. Agile Relationship Diagram
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 **FINAL EXAM PREDICTION**

MOST EXPECTED LONG QUESTION

★ “Explain Agile Project Management and relationship between Agile, Scrum, Lean, DevOps and ITIL.”

MOST EXPECTED SHORT QUESTION

★ “Explain Risk Analysis with steps.”