What is Project Management in Construction?

Worksheet

Construction project management coordinates planning, budgeting, scheduling, resource allocation and quality control to deliver a project on time, within budget and to agreed quality standards.

Questions

1. Project management includes

A) only engineering design
B) scheduling, budgeting, quality control and communication
C) only cost accounting
D) only labor hiring

2. The triple constraint is

A) materials, labor, equipment
B) time, cost, quality
C) permits, insurance, contracts
D) design, procurement, execution

3. What is a critical path in scheduling?

A) the fastest route to the site
B) the sequence of tasks that determines project duration
C) the budget allocation path
D) the safety evacuation route

4. PM stakeholders include

A) only the project manager
B) owner, contractor, consultants, suppliers, regulators, community
C) only engineers
D) only the client

5. A 24-month office building project. How does PM manage the schedule?

6. Project budget is 5 million. Concrete cost doubled due to market prices. How does PM respond?

7. Quality issue found: rebar spacing not per design. PM discovers during mid-project inspection. Action?

8. Define: What is construction project management?

9. Define: Define the triple constraint in PM.

10. Define: What is project scope?

Answer Key

1. B) scheduling, budgeting, quality control and communication - PM integrates planning, resource, time and cost management from start to finish.

2. B) time, cost, quality - The three interdependent factors: improving one often costs another.

3. B) the sequence of tasks that determines project duration - Critical path is the longest chain of dependent tasks; delay in any critical task delays the entire project.

4. B) owner, contractor, consultants, suppliers, regulators, community - Stakeholders are all parties interested in or affected by the project.

5. Breakdown project into phases: site prep (2 mo), foundation (3 mo), structural frame (4 mo), MEP (5 mo), finishes (6 mo), handover (4 mo). Track progress weekly, re-forecast completion date, manage delays by expediting resources or adjusting scope.

6. Identify the cost overrun: +200k for concrete. Options: reduce scope (different flooring), negotiate with supplier, or request budget approval. PM forecasts final cost, reports variance to stakeholders, implements recovery plan.

7. Stop work, investigate non-conformance, determine risk to structural integrity. Remedy: rework section or re-engineer, document lessons learned, tighten inspection protocol to prevent recurrence.

8. The discipline of planning, organizing and controlling resources to deliver a construction project on time, within budget and to quality standards.

9. Time, cost and quality - the three interdependent factors. Changing one affects the others.

10. The defined deliverables: buildings, structures, systems and services included in (or excluded from) the project.