

Tribhuvan University
Institute of Science and Technology
2070



Bachelor Level / Fourth Year / Seven Semester / Science
Computer Science and Information Technology
CSC-408: Software Project Management (SPM)
(NEW COURSE)

Full Marks: 60
Pass Marks: 24
Time: 3 hours

Group –A

Long Answer Questions (Attempt any Two)

(2x10=20)

1. What is project? Explain different phases of project planning.
2. Explain in the cost benefit analysis in details. Explain the evaluation techniques of cost benefits.
3. Explain the SEI Capability Maturity Model (CMM) and SQA plan.

Group-B

Short Answer Questions (Attempt any Eight)

(8x5=40)

4. What do you mean by SPM framework?
5. Explain the product life cycle.
6. What do you mean by cash flow forecasting?
7. Discuss the concept of PERT/CPM in software project management.
8. Explain the QA organizational structure.
9. Mention atleast seven deliverables in a software project
10. What are the four major activities involved in project management? Explain.
11. How can we do project monitoring and control? Explain.
12. Discuss the role of cost estimation in software development project.
13. Write short notes on:
 - (a) Resource allocation
 - (b) Earned value

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Group –A

Long Answer Questions (Attempt any Two)

(2x10=20)

1. Explain the software engineering problem. What do you mean by software project management? Explain.
2. What do you mean by rapid application development? Differentiate between spiral models and prototyping model.
3. Explain the software configuration management and its tasks and roles.

Group-B

Short Answer Questions (Attempt any Eight)

(8x5=40)

4. What do you mean by SPM framework?
5. Explain the product life cycle.
6. Explain the cost-benefit evaluation techniques.
7. Explain the network planning model with example.
8. What do you mean by resource allocation?
9. What do you mean by change control?
10. Explain the typical terms of contract? Mention the different types of people in the team in the software project management.
11. What do you mean by verification and validation? Explain with example.
12. Write short notes on:
 - (a) Visualizing progress
 - (b) Test strategies

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Group –A

Long Answer Questions (Attempt any Two)

(2x10=20)

1. Explain the project management cycle. What are the five competencies of project management skills? Explain.
2. What are the five maturity level of CMM? Differentiate between leaders and managers.
3. Mention at least five examples of software development projects that would require prototyping. Explain each of them.

Group-B

Short Answer Questions (Attempt any Eight)

(8x5=40)

4. Define the terms: Net profit value and pay-back period.
5. Explain the role of cost estimation in software development project.
6. Why are PERT/CPM used in software project management? Explain.
7. Explain the software quality factors.
8. Explain the SEI capability maturity model (CMM).
9. Write the goal of software project planning.
10. What are the stages of Team formation model?
11. Explain the quality assurance plan.
12. Explain the program verification and validation with example.
13. Write short notes on:
 - (a) Project schedule
 - (b) Test plan

Model Question (Software Project Management)

Tribhuvan University

Bachelor of Science in Computer Science and Information Technology

Course Title: Software Project Management

Full Marks: 60

Course No.: CSC-408

Pass Marks: 24

Model Question

Group A

Long Answer Questions (Attempt any Two).

[10×2=20]

1. What are different steps of Project Planning? Describe activities in each step.
2. The table below is an example of project specification with estimated activity duration and precedence requirements:

Activity Name	Activity	Duration (Weeks)	Precedents
A	Hardware Selection	6	
B	System Configuration	4	
C	Install Hardware	3	
D	Data Migration	4	A
E	Draft Office Procedures	3	B
F	Recruit Staff	10	
G	User Training	3	E, F
H	Install and test system	2	C, D

Find the critical path of the project and calculate the earliest completion time of the project.

3. Why are process Capability Models more effective than product matrices? Describe any 3 capability models in detail.

Group B

Short Answer Questions (Attempt any EIGHT)

[8×5=40]

4. What do you mean by Software Project Management? In what ways software projects are different from other types of projects?
5. Explain cost benefit evaluation techniques.
6. Why is it necessary to plan the activities?
7. What are different types of resources? How do you schedule them in the project?
8. How do you visualize progress of the project? Explain any two types.
9. Describe the typical terms of a contract.
10. Describe Verification and Validation of the Program.
11. What do you mean by configuration management? Write its importance in a software project.
12. What are different types of people in a team? Explain various stages a team passes through.
13. Write short notes on:
 - a. Test Plan
 - b. Change Control