

Professional Course Examination, May 2024

(CBCS)

(6th Semester)

BACHELOR OF COMPUTER APPLICATIONS

(Software Project Management)

Full Marks : 75

Time : 3 hours

The figures in the margin indicate full marks for the questions

(PART : A—OBJECTIVE)

(Marks : 25)

SECTION—I

(Marks : 15)

A. Tick (✓) the correct answer in the brackets provided : 1×10=10

1. What is the first stage of the software project management life cycle?

- (a) Planning ()
- (b) Initiation ()
- (c) Execution ()
- (d) Closure ()

2. A project manager is responsible for

- (a) making decisions, developing schedules ()
- (b) control risk and minimize uncertainty ()
- (c) planning and defining scope ()
- (d) All of the above ()

Professional Course Examination, May 2024

(CBCS)

(6th Semester)

BACHELOR OF COMPUTER APPLICATIONS

(Software Project Management)

Full Marks : 75

Time : 3 hours

The figures in the margin indicate full marks for the questions

(PART : A—OBJECTIVE)

(Marks : 25)

SECTION—I

(Marks : 15)

A. Tick (✓) the correct answer in the brackets provided : 1×10=10

1. What is the first stage of the software project management life cycle?
 - (a) Planning ()
 - (b) Initiation ()
 - (c) Execution ()
 - (d) Closure ()
2. A project manager is responsible for
 - (a) making decisions, developing schedules ()
 - (b) control risk and minimize uncertainty ()
 - (c) planning and defining scope ()
 - (d) All of the above ()

3. Which of the following is not a Software Configuration Management Activity?
 - (a) Configuration item identification ()
 - (b) Risk management ()
 - (c) Release management ()
 - (d) Branch management ()
4. Which of the following are parameters involved in computing the total cost of a software development project?
 - (a) Hardware and software costs ()
 - (b) Effort costs ()
 - (c) Travel and training costs ()
 - (d) All of the above ()
5. Which of the following is not categorized under product operation of McCall's software quality factors?
 - (a) Flexibility ()
 - (b) Reliability ()
 - (c) Usability ()
 - (d) Integrity ()
6. Which of the following is not categorized under Component-Level Design Metrics?
 - (a) Complexity metrics ()
 - (b) Cohesion metrics ()
 - (c) Morphology metrics ()
 - (d) Coupling metrics ()
7. In software project management, what does 'resource overallocation' refer to?
 - (a) Assigning too many tasks to a single team member ()
 - (b) Allocating insufficient budget for the project ()
 - (c) Underutilizing available resources ()
 - (d) Not considering resource constraints ()

8. Which of the following processes is concerned with analyzing the costs and benefits of proposed changes?
- (a) Change management ()
 - (b) Version management ()
 - (c) System building ()
 - (d) None of the above ()
9. Which software engineering team has no permanent leader?
- (a) Controlled decentralized ()
 - (b) Democratic decentralized ()
 - (c) Controlled centralized ()
 - (d) None of the above ()
10. Which of the following is a benefit of software quality management?
- (a) Increased development time ()
 - (b) Lower costs ()
 - (c) More defects in the software ()
 - (d) Reduced customer satisfaction ()
- B. Tick (✓) whether the following statements are *True (T)* or *False (F)* : 1×5=5
- 1. The process each manager follows during the life of a project is known as Project Management Life Cycle.
(T / F)
 - 2. The COCOMO model takes into account different approaches to software development, reuse, etc.
(T / F)
 - 3. It is often difficult to estimate size at an early stage in a project when only a specification is available.
(T / F)

4. Cost monitoring ensures projects stay on track financially, contributing to successful project delivery.

(T / F)

5. Project managers have to assess the risks that may affect a project.

(T / F)

SECTION—II

(Marks : 10)

C. Answer the following questions :

2×5=10

1. What is Software Project Management? Give two advantages.

OR

Mention the advantages of using PERT chart.

2. Define generic risk and specific risk.

OR

List out the importance of cost estimation in software development.

3. What are the characteristics of quality in ISO 9126 Standard Quality Model?

OR

Mention the objectives of activity planning.

4. Who are the client and supplier in contract management?

OR

What is critical path? Mention the significance of critical path.

5. What are Herzberg's two-factor theory of motivation?

OR

What are structured and unstructured decision making?

(PART : B—DESCRIPTIVE)

(Marks : 50)

D. Answer the following questions :

10×5=50

1. (a) Discuss the various steps involved in stepwise project planning. 6
Draw the overview diagram of stepwise project planning.
- (b) Briefly explain the four critical components (4 P) in software project planning. 4

OR

- (c) Define Software Development Life Cycle. Discuss the different phases of SDLC with a neat diagram. 2+8=10
2. (a) Mention the importance and the disadvantages of COCOMO model. 4
Discuss the three types of COCOMO model with suitable examples. 4+6=10

OR

- (b) Briefly discuss about the risk planning and controlling. 5
- (c) What is Capability Maturity Model (CMM)? Describe the five levels of Capability Maturity Model. 5
3. (a) Describe the three approaches to identifying activities with suitable diagrams. 6
- (b) What are the four objectives of activity planning? 4

OR

- (c) Elaborate on the four methods of software effort estimation techniques. 8
- (d) What is McCall's quality model? 2
4. (a) Explain the various ways of visualizing the progress of a project with suitable diagrams. 6
- (b) Discuss the different types of contract with examples. 4

OR

- (c) What is resource allocation? Discuss the three resource allocation strategies in project management. 1+1+4=6
- (d) Explain the different steps to create a project monitoring and control plan. 4
5. (a) Describe five stages of team development. 5
- (b) Briefly discuss the different leadership styles. 5

OR

- (c) Briefly discuss expectancy theory of motivation and methods for improving motivation. 5
- (d) Discuss the various techniques to enhance software quality. 5

Professional Course Examination, May 2024

(CBCS)

(6th Semester)

BACHELOR OF COMPUTER APPLICATIONS

(Software Project Management)

Full Marks : 75

Time : 3 hours

The figures in the margin indicate full marks for the questions

(PART : A—OBJECTIVE)

(Marks : 25)

SECTION—I

(Marks : 15)

A. Tick (✓) the correct answer in the brackets provided :

1×10=10

1. What is the first stage of the software project management life cycle?
- (a) Planning ()
- (b) Initiation ()
- (c) Execution ()
- (d) Closure ()
2. A project manager is responsible for
- (a) making decisions, developing schedules ()
- (b) control risk and minimize uncertainty ()
- (c) planning and defining scope ()
- (d) All of the above ()

3. Which of the following is not a Software Configuration Management Activity?

- (a) Configuration item identification ()
- (b) Risk management ()
- (c) Release management ()
- (d) Branch management ()

4. Which of the following are parameters involved in computing the total cost of a software development project?

- (a) Hardware and software costs ()
- (b) Effort costs ()
- (c) Travel and training costs ()
- (d) All of the above ()

5. Which of the following is not categorized under product operation of McCall's software quality factors?

- (a) Flexibility ()
- (b) Reliability ()
- (c) Usability ()
- (d) Integrity ()

6. Which of the following is not categorized under Component-Level Design Metrics?

- (a) Complexity metrics ()
- (b) Cohesion metrics ()
- (c) Morphology metrics ()
- (d) Coupling metrics ()

7. In software project management, what does 'resource overallocation' refer to?

- (a) Assigning too many tasks to a single team member ()
- (b) Allocating insufficient budget for the project ()
- (c) Underutilizing available resources ()
- (d) Not considering resource constraints ()

8. Which of the following processes is concerned with analyzing the costs and benefits of proposed changes?

- (a) Change management ()
- (b) Version management ()
- (c) System building ()
- (d) None of the above ()

9. Which software engineering team has no permanent leader?

- (a) Controlled decentralized ()
- (b) Democratic decentralized ()
- (c) Controlled centralized ()
- (d) None of the above ()

10. Which of the following is a benefit of software quality management?

- (a) Increased development time ()
- (b) Lower costs ()
- (c) More defects in the software ()
- (d) Reduced customer satisfaction ()

B. Tick (✓) whether the following statements are True (T) or False (F) : 1×5=5

1. The process each manager follows during the life of a project is known as Project Management Life Cycle.

(T / F)

2. The COCOMO model takes into account different approaches to software development, reuse, etc.

(T / F)

3. It is often difficult to estimate size at an early stage in a project when only a specification is available.

(T / F)

What are structured and unstructured decision making?

OR

5. What are Herzberg's two-factor theory of motivation?

What is critical path? Mention the significance of critical path.

OR

4. Who are the client and supplier in contract management?

Mention the objectives of activity planning.

OR

3. What are the characteristics of quality in ISO 9126 Standard Quality Model?

List out the importance of cost estimation in software development.

OR

2. Define generic risk and specific risk.

Mention the advantages of using PERT chart.

OR

1. What is Software Project Management? Give two advantages.

C. Answer the following questions :

(Marks : 10)

SECTION—II

(T / F)

5. Project managers have to assess the risks that may affect a project.

(T / F)

4. Cost monitoring ensures projects stay on track financially, contributing to successful project delivery.

(PART : B—DESCRIPTIVE)

(Marks : 50)

Answer the following questions : $10 \times 5 = 50$

1. (a) Discuss the various steps involved in stepwise project planning. 6
(b) Briefly explain the four critical components (4 P) in software project planning. 4

OR

- (c) Define Software Development Life Cycle. Discuss the different phases of SDLC with a neat diagram. $2+8=10$

2. (a) Mention the importance and the disadvantages of COCOMO model. Discuss the three types of COCOMO model with suitable examples. $4+6=10$

OR

- (b) Briefly discuss about the risk planning and controlling. 5

- (c) What is Capability Maturity Model (CMM)? Describe the five levels of Capability Maturity Model. 5

3. (a) Describe the three approaches to identifying activities with suitable diagrams. 6
(b) What are the four objectives of activity planning? 4

OR

- (c) Elaborate on the four methods of software effort estimation techniques. 8

- (d) What is McCall's quality model? 2

4. (a) Explain the various ways of visualizing the progress of a project with suitable diagrams. 6
(b) Discuss the different types of contract with examples. 4

- (c) What is resource allocation? Discuss the three resource allocation strategies in project management. 1+1+4=6
- (d) Explain the different steps to create a project monitoring and control plan. 4
5. (a) Describe five stages of team development. 5
- (b) Briefly discuss the different leadership styles. 5
- OR**
- (c) Briefly discuss expectancy theory of motivation and methods for improving motivation. 5
- (d) Discuss the various techniques to enhance software quality. 5