

(2½ Hours)

[Total Marks: 75]

- N. B.: (1) **All** questions are **compulsory**.  
 (2) Make **suitable assumptions** wherever necessary and **state the assumptions** made.  
 (3) Answers to the **same question** must be **written together**.  
 (4) Numbers to the **right** indicate **marks**.  
 (5) Draw **neat labeled diagrams** wherever **necessary**.  
 (6) Use of **Non-programmable** calculators is **allowed**.

**1. Attempt any three of the following:**

15

- a. Define a project and list the key differences between software projects and other types of projects.
- b. Analyze the role of stakeholders and the project charter in determining project success or failure. How do they influence project objectives?
- c. What is the relationship between software development and project development life cycle?
- d. Explain given terms: 1. Payback period 2. Return on investment
- e. Explain the concept of Risk Evaluation in the context of Project Evaluation and Programme Management. Discuss the steps involved in identifying, assessing, and prioritizing risks during a software project.
- f. Explain stepwise method framework of project planning.

**2. Attempt any three of the following:**

15

- a. Explain incremental delivery model with its advantages and disadvantages.
- b. Describe the concept of software effort estimation and discuss its significance in the planning and successful execution of a software project.
- c. Write a detailed note on staffing patterns.
- d. Explain extreme programming and its core practices.
- e. Discuss in detail the different Scrum ceremonies and explain how they help in planning, tracking, and reviewing work in Agile projects.
- f. Explain Atern process model.

**3. Attempt any three of the following:**

15

- a. Describe the product based approach used for project planning.
- b. Explain the framework for dealing with risk.
- c. What is a forward pass in network planning model? Explain how it is used to determine the earliest start and finish times, with an example.
- d. List and explain Burma's priority list.
- e. What are the different rules followed for constructing Network model?
- f. Explain nature of resources and their scheduling.

4. Attempt any three of the following:

15

- a. Explain the importance of Gantt charts and slip charts in review process.
- b. Describe the software configuration management (SCM) process and explain the key activities involved in managing software versions and changes.
- c. How is Earned Value Analysis used to evaluate a project's performance against its planned schedule and budget?
- d. Define fixed-price contracts and discuss their features, advantages, and disadvantages in detail.
- e. What are the common stress factors in software environments? Suggest strategies for stress management, health, and safety at the workplace.
- f. Explain Maslow's hierarchy of needs.

5. Attempt any three of the following:

15

- a. Explain working in teams. What are the stages of development of a team?
  - b. Describe the different software quality models and explain their significance in assessing and improving software quality.
  - c. Discuss about dispersed teams with their advantages, disadvantage and challenges.
  - d. What kind of communication genre is preferred in each stage of project development? Explain in detail.
  - e. Explain different types of leadership styles.
  - f. Outline the steps involved in project closure, including financial closure and preparation of a project closeout report
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