

(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:

- a. Define a term project and give the importance of Software Project Management
- b. Explain the stages involved in project management life cycle in detail.
- c. Write a note on Project portfolio management.
- d. What is the importance of identifying the scope and objectives of a project?
- e. How is resource allocation managed in an activity of programme management?
- f. Write a note on risk evaluation and management.

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2. Attempt any three of the following:

- a. Explain different approaches used for fast delivery of a project.
- b. What are the advantages and disadvantages of a Spiral model?
- c. Discuss the common problems faced during effort estimation.
- d. State and explain Capers Jones estimating rules.
- e. Explain the top down approach associated with parametric models.
- f. Write a note on COCOMO II model.

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3. Attempt any three of the following:

- a. What is the necessity of activity planning?
- b. Explain network planning model and the concept of backward pass.
- c. Define the term risk and discuss the ways to deal with them.
- d. Describe Monte Carlo simulation.
- e. Explain the nature of resources and their scheduling.
- f. What are the factors considered while allocating tasks to the individuals?

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4. Attempt any three of the following:

- a. Give the benefits of review in the process of project monitoring and control.
- b. Write a note on change control.
- c. Explain the advantages and disadvantages of fixed price contracts.
- d. Explain the stages in contract placement.
- e. Write a note on ethical and professional concerns as a member of any organization
- f. Explain Taylor's model of motivation.

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5. Attempt any three of the following:

- a. Describe a virtual team and the advantages of forming a virtual team.
- b. Write a role of different types of people needed to form a balanced team.
- c. Define the term quality. Explain McCall's quality model.
- d. State and explain different levels of Capability Maturity Model (CMM).
- e. Explain the metrics correlated with Software reliability.
- f. Discuss the reasons for project closure.

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