

(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
- Briefly explain the different phases of project management life cycle.
 - What is project charter in software project management? What are the elements of project charter?
 - What is project portfolio management? Explain the key aspects of project portfolio management.
 - Define the following terms:
 i) Net profit ii) Return on Investment iii) Payback period iv) Net present value
 v) Internal rate of return
 - What is a project product? Explain Product Breakdown Structure with the help of example.
 - What do you mean by scope and objective of a project? List the activities involved in identifying project scope and objective.
2. **Attempt any three of the following:** 15
- What do you understand by the term ‘ceremonies’ in a scrum project? Explain the different types of ceremonies that are observed in a Scrum project and their significance.
 - List the advantages and disadvantages of software prototyping.
 - Explain the five major components of Albrecht Function Point Analysis.
 - What are effort multipliers in COCOMO II model? List the effort multipliers used at early design.
 - Explain eight core principles of Dynamic Systems Development Method.
 - State Capers Jones rules of thumb for software estimation.
3. **Attempt any three of the following:** 15
- With the help of example explain forward pass and backward pass to calculate activity duration in network diagram.
 - Define the following terms
 i) Critical path ii) Float iii) Free float iv) Interfering float v) Hammock activity
 - Explain Boehm’s top ten software project risks and the different strategies for reducing it.
 - Write short note on Project Evaluation and Review Technique.
 - Explain the different categories of cost incurred in a software project.
 - What is resource smoothing? Explain two different ways of prioritizing activities for resource allocation.

[TURN OVER]

- 4. Attempt any three of the following: 15**
- a Explain review process model with the help of diagram.
 - b What is meant by software configuration management? Explain the two principal activities of configuration management.
 - c Explain the main sections in a requirement document for contract placement.
 - d What is fixed price contract? List the advantages and disadvantages of fixed price contract.
 - e What are three important categories of stress management techniques?
 - f Explain Vroom's expectancy theory of motivation.
- 5. Attempt any three of the following: 15**
- a Explain the advantages of a functional organization over project organization.
 - b List the obstacles to good group decision making. Also explain Delphi decision making process.
 - c Write short note on SEI capability maturity model.
 - d What is reliability growth model? Explain any two reliability growth models.
 - e What are the steps of conducting a post implementation project review?
 - f Explain the different reason for which a project may need to be terminated.