

T.Y. B.Sc IT Sem-V dt. 10/02/2025  
CBS.

Time: (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**.

- Q1. Attempt **any three** of the following: 15 Marks
- Define Project Charter. Explain its benefits & components.
  - What is Business Case? State its contents & explain its objectives.
  - State & explain the different phases of Project Management Life Cycle.
  - What is cost benefit evaluation & Return on investment?
  - Define Risk. Explain Risk Management process in detail.
  - Why is it essential to undertake the feasibility study? Explain its steps.

- Q2. Attempt **any three** of the following: 15 Marks
- Describe the waterfall model in detail. State its advantages & disadvantages.
  - Write a detailed note on the Structure of an Atern Project.
  - What are different software effort estimation techniques?
  - Discuss COCOMO II model with its different types & stages.
  - Explain in detail about capers jones Estimating rules of thumb.
  - Write a brief note on Agile and Scrum.

- Q3. Attempt **any three** of the following: 15 Marks
- State the objective of activity planning in software development.
  - Explain the Boehm's top 10 software risks and its counter measures.
  - Describe the PERT Technique in detail.
  - What is the nature or categories of a resources?
  - Explain the following Terms:
    - Activity-On-Arrow Networks
    - Critical path
    - Free & Interfering float
  - Describe the Framework for Dealing with Risk.

- Q4. Attempt **any three** of the following: 15 Marks
- Explain Earned value analysis technique in detail.
  - What is software configuration management? State its purpose and explain its terminologies.
  - Explain Slip chart & Gantt chart with diagram. State the significance of each.
  - Write about Time and materials contracts & fixed price contracts.
  - Describe the different stages in contract placement.
  - Explain the Maslow's Hierarchy of needs.