(2½ Hours)

[Total Marks: 75]

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

1.   **Attempt _any three_ of the following:**   15
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.

2.   **Attempt _any three_ of the following:**   15
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.

3.   **Attempt _any three_ of the following:**   15
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?

4.   **Attempt _any three_ of the following:**   15
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.

5.   **Attempt _any three_ of the following:**   15
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.