

(Time: 2 $\frac{1}{2}$ hours)

[Marks: 75]

Please check whether you have got the right question paper.

- 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** calculator is **allowed**.

1. **Attempt any two of the following:** **10**
 - a. Explain the five basic parameters of the software cost model.
 - b. Explain the drawbacks of Waterfall Model.
 - c. How software size can be reduced? Explain.
 - d. How peer inspection helps in improving returns on investment? Explain.

2. **Attempt any two of the following:** **10**
 - a. Summarize differences, in emphasis on different life cycle aspects, between the two life cycle stages.
 - b. Explain "Elaboration Phase" of the life cycle.
 - c. List all the five artifact sets. Explain Release Specification.
 - d. Discuss technical perspective of software architecture.

3. **Attempt any two of the following:** **10**
 - a. Write a short note on Major Milestones.
 - b. Define WBS. Explain Evolutionary Work Break Down Structures.
 - c. Explain the Iteration planning process.
 - d. Summarize the life cycle emphasis associated with each workflow.

4. **Attempt any two of the following:** **10**
 - a. Define Organizational structure. What is a Line of Business organization? Briefly explain main features of default Line of business organization.
 - b. Discuss various change categories defined on the basis of causes of change. Allocate the appropriate change category to the following changes:-
 - i) Port to new platform
 - ii) Loss of user data
 - iii) Use of colours to differentiate updates from the previous version
 - iv) Browser expands but doesn't collapse displayed entries
 - v) Upgradation to improve query performance
 - c. Explain mapping between process workflows and software development tools.
 - d. How the teams gravity shifts over the life cycle? Explain.

[TURN OVER]

5. Attempt **any two** of the following:

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- a. Define Metrics. Explain 7 core metrics.
- b. Discuss the basic characteristics of good metrics.
- c. Explain SPCP (software project control panel).
- d. What do you mean by “Tailoring the process”? Explain the dimensions of discriminating factors for tailoring the process.

6. Attempt **any two** of the following:

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- a. How modern process framework exploits several critical approaches for resolving the five recurring issues of the conventional process.
- b. Discuss the software management best practices.
- c. Discuss the two major improvements expected in the next generation cost models.
- d. Discuss the culture shifts necessary for the transition to modern software process.

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

15

- a. Discuss important trends in improving software economics.
 - b. Give difference between Software architecture and design.
 - c. Discuss issues related to conventional WBS.
 - d. Write a short note on SCO.
 - e. Explain EVS (earned value system).
 - f. Summarize the balanced application of modern principles to achieve economic results.
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