Q. P. Code: 08218

(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]

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5. **Attempt _any two_ of the following:**   10
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:**   10
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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