

# 22413

**21819**

**3 Hours / 70 Marks**

Seat No.

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- Instructions* –
- (1) All Questions are *Compulsory*.
  - (2) Answer each next main Question on a new page.
  - (3) Illustrate your answers with neat sketches wherever necessary.
  - (4) Assume suitable data, if necessary.
  - (5) Use of Non-programmable Electronic Pocket Calculator is permissible.
  - (6) Mobile Phone, Pager and any other Electronic Communication devices are not permissible in Examination Hall.
  - (7) Preferably, write the answers in sequential order.

**Marks**

- 1. Attempt any FIVE of the following: **10****
- a) Enlist and explain software characteristics (any two).
  - b) Define software on engineering.
  - c) State need of software requirement specification (SRS).
  - d) Define Reactive Risk strategies.
  - e) Specify following cost directives of cocomo:
    - (i) Product attributes (any two)
    - (ii) Hardware attributes (any two).
  - f) Differentiate between Software Quality Management and Software Quality Assurance (any two points).
  - g) Define Software Quality Assurance.

P.T.O.

- 2. Attempt any THREE of the following:** **12**
- a) Explain Software Engineering as layered technology approach.
  - b) Explain with example Decision table.
  - c) Explain following elements of management spectrum:
    - (i) People
    - (ii) Process
    - (iii) Product
    - (iv) Project
  - d) List and explain basic principles of project scheduling.
- 3. Attempt any THREE of the following:** **12**
- a) Distinguish between perspective process model and agile process model.
  - b) Describe any four principles of communication for software engineering.
  - c) Draw proper labeled “LEVEL I Data Flow Diagram” (DFD) for student attendance system.
  - d) State importance of “Function Point (FP)” and “Lines of codes (LOC)” in concerned with project estimation.
- 4. Attempt any THREE of the following:** **12**
- a) Describe extreme programming with proper diagram
  - b) List and explain any “four core principles” of software engineering.
  - c) Explain RMMM plan with example.
  - d) Explain any one project cost estimation approach.
  - e) Prepare time line chart for Library Managements System (five days a week) Consider phases of SDLC.

- 5. Attempt any TWO of the following: 12**
- a) Enlist Requirement Gathering and Analysis for web based project for registering candidates for contest (any six points).
  - b) Differentiate between White box and Black box testing (any six points).
  - c) Describe Co-Como II model for evaluating size of software project with any three parameters in detail.
- 6. Attempt any TWO of the following: 12**
- a) Draw and explain Transition diagram from requirement model to design model.
  - b) Describe CMMI. Give significance of each level.
  - c) Identify and enlist requirement for given modules of employee management software:
    - (i) Employee detail
    - (ii) Employee salary
    - (iii) Employee performance.
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