

22413

11920

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) Figures to the right indicate full marks.
(5) Mobile Phone, Pager and any other Electronic Communication devices are not permissible in Examination Hall.

Marks

- 1. Attempt any FIVE of the following:** **10**
- a) Define software. Draw the failure curve for Software.
 - b) State two characteristics of Software.
 - c) Define software requirements specifications.
 - d) Define Proactive and Reactive risk strategy.
 - e) Name two cost estimation approaches.
 - f) Define software quality.
 - g) Name four software quality assurance activities.
- 2. Attempt any THREE of the following:** **12**
- a) State and explain with examples four broad categories of software.
 - b) Explain the notations used for preparing a Data Flow diagram.
 - c) Describe 4 'P's of management spectrum giving their significance.
 - d) Explain four basic principles of software Project Scheduling.

P.T.O.

- 3. Attempt any THREE of the following: 12**
- a) Explain process framework with a suitable diagram.
 - b) Describe four principles of good planning.
 - c) Draw and explain Level 1 DFD for railway reservation system.
 - d) With an example, explain Line of Code (LOC) based estimation.
- 4. Attempt any THREE of the following: 12**
- a) Explain waterfall process model. State its advantages and disadvantages.
 - b) Enlist core principles of Software engineering practice.
 - c) Describe RMMM Strategy.
 - d) Describe the Analytical method of project cost estimation with example.
 - e) Explain GANTT chart and its application for project tracking with an example.
- 5. Attempt any TWO of the following: 12**
- a) Sketch a use case diagram for library management system with minimum four use cases and two actors.
 - b) Explain the concept of Black box testing and white box testing.
 - c) Calculate using COCOMO model
 - (i) Effort
 - (ii) Project duration
 - (iii) Average staff sizeif estimated size of project is 200 KLOC using organic mode.

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[3]

Marks

6. Attempt any TWO of the following:

12

- a) Define data objects, attributes, relationship, cardinality with example of each.
 - b) Compare CMMI and ISO for software w.r.to
 - i) Scope
 - ii) Approach
 - iii) Implementation.
 - c) Explain six functions of requirement engineering process.
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