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12526

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) Assume suitable data, if necessary.
(6) 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 engineering.
 - b) State the need of SRS.
 - c) State classification of Risk.
 - d) Define software quality control and quality assurance.
 - e) Define Defect.
 - f) Define the term requirement analysis.
 - g) What is the objective of project planning.

P.T.O.

- 2. Attempt any THREE of the following : 12**
- a) Explain software engineering layered approach with suitable diagram.
 - b) Explain waterfall model with neat diagram.
 - c) Describe four core principles of software engineering practice.
 - d) State project size estimation techniques and explain any one.
- 3. Attempt any THREE of the following : 12**
- a) Explain adaptive software development w.r.t.
 - i) Speculation
 - ii) Collaboration.
 - b) Draw use case diagram for Library with minimum four use case and two actors.
 - c) Explain the 4P's management spectrum.
 - d) Explain CMMI with neat diagram.
- 4. Attempt any THREE of the following : 12**
- a) Distinguish between prescriptive process model and Agile process model.
 - b) Describe four principles of good planning.
 - c) Explain static and Dynamic testing.
 - d) Describe six sigma and state the phases of DMAIC and DMADV.
 - e) Distinguish between test strategy and test plan.

5. Attempt any TWO of the following :**12**

- a) Identify and enlist requirement for given modules of employee management software.
 - i) Employee detail.
 - ii) Employee salary
 - iii) Employee performance
- b) Prepare time line chart for library managements system for five days a week. Consider phases of SDLC.
- c) Explain Test Management and Test Infrastructure in detail.

6. Attempt any TWO of the following :**12**

- a) Use COCOMO model to calculate :
 - i) Effort
 - ii) Development time
 - iii) Average staff size
 - iv) ProductivityIf estimate size of project is 800 KLOC using embedded model.
 - b) Distinguish between quality assurance and quality control.
(Any six points)
 - c) Write any one defect report using defect template.
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