

22413

12223

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 answer 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) State the characteristics of Software Engineering.
- b) Define :-
- i) Software
- ii) Software Engineering
- c) State the characteristics of SRS.
- d) List the project cost Estimation Approaches.
- e) Define risk and list any two types of risk.
- f) Define Software Quality Control and Quality Assurance.
- g) List the phases of Software Quality Assurance.

P.T.O.

- 2. Attempt any THREE of the following:** **12**
- a) State and describe any four types of Software.
 - b) Explain structured flowchart with suitable example.
 - c) Describe 4P's of management spectrum.
 - d) Describe critical path method with suitable example.
- 3. Attempt any THREE of the following:** **12**
- a) Distinguish between waterfall model and spiral model.
 - b) Describe any four Software analysis modeling principles.
 - c) Draw DFD for Railway Reservation Management System for level 0 and level 1.
 - d) Explain line of code metrics for size estimation.
- 4. Attempt any THREE of the following:** **12**
- a) Explain Dynamic Systems Development Method (DSDM).
 - b) State software engineering practices and its importance.
 - c) State and explain the component of Risk Management.
 - d) Describe following project cost estimation approaches :-
 - i) Heuristic
 - ii) Empirical
 - e) Prepare macro time line chart for 15 days of college management system (5 days a week) consider phases of SDLC.
- 5. Attempt any TWO of the following:** **12**
- a) Sketch use-case diagram for Library management with minimum four use cases and two actors.
 - b) Differentiate between white box testing and black box testing.
 - c) Describe a Cocomo and Cocomo-II models.

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[3]

Marks

6. Attempt any TWO of the following:

12

- a) Recognize requirement for following modules of hospital management software
 - i) Customer module
 - ii) Administrator module
 - iii) Account module
 - b) Draw neat labelled diagram of translation of requirement model in to design model and explain it with details.
 - c) Explain CMMI Techniques with its level.
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