SEAT No. :

P2458

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T.E. (Information Technology)
SOFTWARE ENGINEERING
(2008 Pattern) (Semester - I)

Time : 3 Hours]   *[Max. Marks : 100*

Instructions to the candidates:

1) *Answers to the two sections should be written in separate answer books.*
2) *Answer any three questions from each section.*
3) *Neat diagrams must be drawn wherever necessary.*
4) *Figures to the right side indicate full marks.*
5) *Use of Calculator is allowed.*
6) *Assume Suitable data, if necessary.*

SECTION-I

Q1) a) Explain the following models   **[10]**

     i) Waterfall Model

     ii) Concurrent Model

   b) What are process Models? Explain Personal Software Process and Team Software Process.   **[8]**

OR

Q2) a) Software Engineering is considered as layered technology. Comment.**[9]**

   b) Explain Agile Process Model.   **[9]**

Q3) a) Draw E-R diagram for relationship between customer and banking system.   **[6]**

   b) Draw and explain the traceability table for requirement management. **[6]**

   c) Describe two real time situation in which the customer and the end-user is same. Describe two situation in which they are different.   **[4]**

OR

Q4) a) What is meant by requirement specifications? What are the characteristics that requirement must meet? **[8]**

b) What is meant by normal and exciting requirements? How requirements are validates? **[8]**

Q5) a) Explain the goals of design process? **[8]**

b) Explain Data-centered architecture and Data-Flow architecture. **[8]**

OR

Q6) a) What are the elements in data design? What are the guidelines for the data design? **[8]**

b) What are the interface design principles and guidelines? **[8]**

SECTION-II

Q7) a) What is cyclomatic complexity? How is it determined for a flow graph? Illustrate with example. **[8]**

b) What are the testing strategies for web application? Explain the testing process for web application. **[8]**

OR

Q8) a) What is black box testing? What are the ways to perform black box testing? **[8]**

b) What is verification testing and validation testing? Explain in brief. **[8]**

Q9) a) What are the categories of stakeholders? What are the characteristics of effective project manager? **[8]**

b) Explain the COCOMOII estimation model. **[8]**

OR

*Q10)*a) What are the ways in which software estimation can be classified? Elaborate. **[6]**

b) What is FPA? Explain in brief. **[10]**

*Q11)*a) What are the software quality factors? Explain any four. **[12]**

b) What are the types of risks? Explain in brief. **[6]**

OR

*Q12)*Write short notes on: **[18]**

a) Software quality assurance (SQA).

b) Change control process.

c) Earned value analysis.

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