

Scheme – G
Sample Test Paper - I

Course Name : Computer Engineering Group

Course Code : CO/CD/CM/CW/IF

Semester : Fifth

Subject Title : Software Engineering

Marks : 25 Marks

17513

Time: 1 Hour

Q1. Answer Any Three.

(3*3=9)

- a) Describe working of Prototyping process model with neat diagram.
- b) What is Software engineering? How it differs from system engineering?
- c) What is the use of DFD Diagram? Give standard notation used for DFD.
- d) What is SRS document? Why it is needed?

Q2. Answer any Two.

(4*2=8)

- a) Describe any four design modeling principles.
- b) What are the advantages of incremental process model? Describe phases of Incremental process model with suitable diagram.
- c) State planning practices principles. Describe any two.

Q3. Answer any Two.

(4*2=8)

- a) Describe RAD process model with suitable diagram.
- b) What is analysis modeling? Describe structured analysis approach.
- c) Draw use case diagram for railway reservation system..

Scheme – G
Sample Test Paper - II

Course Name : Computer Engineering Group

Course Code : CO/CD/CM/CW/IF

Semester : Fifth

Subject Title : Software Engineering

Marks : 25 Marks

17513

Time: 1 Hour

Q1. Answer Any Three.

(3*3=9)

- a) What are different types of Integration testing? Describe any one with suitable diagram.
- b) What is software risk? List any four types of software risk.
- c) Define SCM. Give its benefits.
- d) Compare CMMI and ISO w.r.t. scope, approach, and implementation.

Q2. Answer any Two.

(4*2=8)

- a) Describe unit testing with suitable example.
- b) Describe CMMI with its levels of integration.
- c) Give characteristics of bugs. (Any Four)

Q3. Answer any Two.

(4*2=8)

- a) What is SCM repository? Give features supported by SCM repository.
- b) Describe project scheduling techniques using PERT and CPM.
- c) List Quality evaluation standards. Describe any one in detail.

Scheme – G
Sample Question Paper

Course Name : Computer Engineering Group

Course Code : CO/CD/CM/CW/IF

Semester : Fifth

Subject Title : Software Engineering

Marks : 100

17513

Time: 3 Hours

Instructions

1. All questions are compulsory
2. Illustrate your answer with neat sketches wherever necessary
3. Figures to the right indicates full marks
4. Assume suitable data if necessary
5. Preferably, write the answers in sequential order

Q1. A) Answer any THREE of the following

12 Marks

- a) Define Software. Describe Characteristics of Software.
- b) Describe any four analysis modeling principles.
- c) Describe Object oriented analysis modeling approach with example.
- d) Compare PSP and TSP (any Four Points)

Q1. B) Answer any ONE of the following

06 Marks

- a) Describe various phases of Spiral process model with neat diagram.
- b) Draw DFD Level 0 and Level 1 for Bank Management System.

Q2. Answer any FOUR of the following

16 Marks

- a) Compare Prescriptive process model with Agile Process model (4 points)
- b) Describe any four communication principles.
- c) Draw use case diagram for hospital management system.
- d) Draw Layered Technology Approach. Describe various layers.
- e) Define following with example
 - a. Data attributes
 - b. Cardinality and Modularity.
- f) Describe phases of Waterfall process model with neat diagram and state where application.

Q3. Answer any FOUR of the following

16 Marks

- a) List any eight categories of software.
- b) List various Requirement Engineering Tasks. Describe any Three.
- c) Draw format of table of content of general SRS document mentioning the topics/titles. Describe any four topics/title.
- d) Draw Deployment Diagram for Safehome System.
- e) Describe Data Dictionary. List its advantages.

Q4. A) Answer any THREE of the following

12 Marks

- a) Describe characteristics of testing strategies.
- b) What is management spectrum? Describe with neat diagram.
- c) Describe any eight McCall's quality factors.
- d) Describe Debugging process with suitable diagram.

Q4. B) Answer any ONE of the following.

06 Marks

- a) List basic principles of software project scheduling. Describe any four principles.
- b) What is SQA? Describe SQA Activities.

Q5 Answer any TWO of the following

16 Marks

- a) State various Core principles of Software Engineering. Describe any six with meaning.
- b) Describe following
 - i. Reactive Risk Strategies
 - ii. Proactive Risk Strategies
- c) What is Quality control? Describe DMAIC and DMADV approach w.r.t to Six Sigma.

Q6. Answer any FOUR of the following

16 Marks

- a) Compare Alpha Testing and Beta Testing (any four points)
- b) Describe following Debugging strategies.
 - i. Back tracking
 - ii. Brute force
- c) List four types of software risks. State impact of each of them.
- d) Describe the need of RMMM Strategy in the Risk Control..
- e) Compare White box testing and Black box testing (Any four points)