Printed Page:- **Subject Code**:- **ACSE0603/ACSEH0603**

Roll. No:

NOIDA INSTITUTE OF ENGINEERING AND TECHNOLOGY, GREATER NOIDA

(An Autonomous Institute Affiliated to AKTU, Lucknow)

B.Tech

SEM: VI - THEORY EXAMINATION (20.....- 20.....)

Subject: Software Engineering

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

General Instructions:

IMP: *Verify that you have received the question paper with the correct course, code, branch etc.*

1. *This Question paper comprises of* ***three Sections -A, B, & C.*** *It consists of Multiple Choice Questions (MCQ's) & Subjective type questions.*

2. *Maximum marks for each question are indicated on right -hand side of each question.*

3. *Illustrate your answers with neat sketches wherever necessary.*

4. *Assume suitable data if necessary.*

5. *Preferably, write the answers in sequential order.*

6. *No sheet should be left blank. Any written material after a blank sheet will not be evaluated/checked.*

SECTION-A 20

1. Attempt all parts:-

1-a. First step in the software development lifecycle. (CO1,K1) 1

(a) System Design
(b) Coding
(c) System Testing
(d) Preliminary Investigation and Analysis

1-b. RAD stand for - (CO1,K1) 1

(a) Rapid Application Document
(b) Rapid Application Development
(c) Relative Application Development
(d) None of the above

1-c. SRS stand for : (CO2, K1) 1

(a) Software Requirement Specification
(b) Software Refining Solution
(c) Software Resource Source
(d) None of the above

1-d. The process to gather the software requirements from client, analize and document them is known as.(CO2, K1) 1

(a) Requirement engineering
(b) Requirement elicitation

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(c) User interface requirements

(d) Software system analyst

1-e. The extent to which different modules are dependent upon each other is called : (CO3, K2) 1

(a) Coupling

(b) Cohesion

(c) Modularity

(d) Stability

1-f. The worst type of coupling is : (CO3, K2) 1

(a) Content

(b) Common

(c) External

(d) Data

1-g. In which one of the following, continuos process improvement is done. (CO4, K2) 1

(a) ISO9001

(b) RMMM

(c) CMM

(d) SQA

1-h. Boundary value analysis belong to : (CO4, K2) 1

(a) White Box Testing

(b) Black Box Testing

(c) White Box & Black Box Testing

(d) None of the mentioned

1-i. Software Maintenance includes. (CO5, K2) 1

(a) Error corrections

(b) Enhancements of capabilities

(c) Deletion of obsolete capabilities

(d) All of the mentioned

1-j. Explain type of software testing is generally used in Software Maintenance. (CO5, K2) 1

(a) Regression Testing

(b) System Testing

(c) Integration Testing

(d) Unit Testing

2. Attempt all parts:-

2.a. Define SDLC. (CO1, K2) 2

2.b. Explain the purpose of data flow diagrams? (CO2, K2) 2

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2.c.	Differentiate between inheritance and generalization. (CO3, K2)	2
2.d.	Differentiate error, fault, and bug. (CO4, K2)	2
2.e.	Define team struture. (CO5, K2)	2

SECTION-B 30

3. Answer any five of the following:-

3-a.	Define following software terminologies: Deliverables, milestones, metrics, Productivity. (CO1,K1)	6
3-b.	According to you which is most creative and challenging phase of software development life cycle and why? (CO1,K2)	6
3-c.	Explain Requirement Elicitation and Analysis.(CO2, K2)	6
3-d.	Draw and explain complete Use Case Diagram for online book store. (CO2, K3)	6
3.e.	Compare and contrast between Top-Down and Bottom-Up approaches for architecture design modeling. (CO3, K4)	6
3.f.	Explain the difference between Functional testing and Non-Functional testing. (CO4, K2)	6
3.g.	Justify the statement of Software maintenance is costlier. (CO5,K5)	6

SECTION-C 50

4. Answer any one of the following:-

4-a.	Explain the process model which is normally suits for development of large-scale software system. (CO1,K2)	10
4-b.	Provide a comparison between the following models. Provide each of their definition, advantages and disadvantages. (a) Prototype Model (b) Incremental Model (CO1,K4)	10

5. Answer any one of the following:-

5-a.	Discuss about the characteristics of the SRS. (CO2,K2)	10
5-b.	Mention the main challenges in requirements elicitation. (CO2,K2)	10

6. Answer any one of the following:-

6-a.	Describe various types of relationships used in UML. (CO3,K2)	10
6-b.	Design and explain a Class Diagram for an E-Library Management System. (CO3,K6)	10

7. Answer any one of the following:-

7-a.	Illustrate the seven key principles important for effective software testing. Emphasize the significance of each. (CO4,K2)	10
7-b.	Compare and contrast the concepts of Test Stubs and Test Drivers in the context of software testing. (CO4,K4)	10

8. Answer any one of the following:-

8-a.	Explain Reverse Engineering and it's various levels. (CO5,K2)	10
8-b.	Explain the difference between information engineering and product	10

engineering. (CO5,K2)

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