| O.P.Code: 20CI0605 | R20 | H.T.No. | | | | | | | | | |
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**SIDDHARTH INSTITUTE OF ENGINEERING & TECHNOLOGY:: PUTTUR**

(AUTONOMOUS)

**B.Tech III Year I Semester Regular & Supplementary Examinations February-2024**

**SOFTWARE ENGINEERING & TESTING**

(Computer Science & Information technology)

**Time: 3 Hours** **Max. Marks: 60**

(Answer all Five Units **5 x 12 = 60** Marks)

**UNIT-I**

| | | | | | |
|---|---|---|---|---|---|
| 1 | a | Explain in detail the following software metrics with example. i) Size metric. ii) Token Count. | CO1 | L2 | 6M |
| | b | Compare iterative enhancement model and evolutionary process model. | CO1 | L2 | 6M |
| | | **OR** | | | |
| 2 | a | Describe the rapid application development (RAD) model. Discuss each phase in detail. | CO1 | L5 | 6M |
| | b | Is software metrics required in software engineering. Why do we really need metrics in software? | CO1 | L1 | 6M |

**UNIT-II**

| | | | | | |
|---|---|---|---|---|---|
| 3 | a | What is COCOMO Model? Explain Basic COCOMO model in detail. | CO2 | L1 | 6M |
| | b | Differentiate functional and non-functional requirements. | CO2 | L2 | 6M |
| | | **OR** | | | |
| 4 | a | Explain the Putnam resource allocation model. What are the limitations of this model? | CO2 | L3 | 6M |
| | b | List the characteristics of good SRS document and their requirements. | CO2 | L2 | 6M |

**UNIT-III**

| | | | | | |
|---|---|---|---|---|---|
| 5 | a | What is module cohesion? Classify different type of module cohesion. | CO3 | L4 | 6M |
| | b | Demonstrate relationship between module cohesion and module coupling for process of good software design. | CO3 | L1 | 6M |
| | | **OR** | | | |
| 6 | a | Illustrate software design framework. | CO3 | L2 | 6M |
| | b | Discuss the difference between object oriented designs and function oriented design. | CO3 | L6 | 6M |

**UNIT-IV**

| | | | | | |
|---|---|---|---|---|---|
| 7 | a | Explain the boundary value analysis testing techniques with the help of an example. | CO4 | L2 | 6M |
| | b | Explain decision table based testing technique. | CO4 | L5 | 6M |
| | | **OR** | | | |
| 8 | a | Simplify data flow testing technique with an example. | CO4 | L2 | 6M |
| | b | What are the objectives of testing? Why is the psychology of a testing person important? | CO4 | L1 | 6M |

**UNIT-V**

| | | | | | |
|---|---|---|---|---|---|
| 9 | a | Differentiate between re-engineering and new development. | CO5 | L2 | 6M |
| | b | What are the appropriate reverse engineering tools? Discuss any two tools in detail. | CO5 | L1 | 6M |
| | | **OR** | | | |
| 10 | a | What is reverse engineering? Discuss levels of reverse engineering. | CO5 | L6 | 6M |
| | b | Compare New software development and Re-engineering. | CO5 | L4 | 6M |

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