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| | | Register Number | 2 | 1 | C | S | R | 0 | 1 | 4 | | |

**VELALAR COLLEGE OF ENGINEERING AND TECHNOLOGY**

(An Autonomous Institution, Affiliated to Anna University, Chennai)

| Continuous Assessment Test - II | | | | QP Set | 2 | Regulations-2018 | |
|---|---|---|---|---|---|---|---|
| Programme | B.E/B/Tech- (Common to CSE &IT) | Semester: | 4 | Max. Marks: | 60 | Duration | 2.0 Hrs |
| Course Code & Title: | 21CST42 & Software Engineering | | | | | | |
| **Class**: 21CS4A&B, 21IT4A&B | **Date**:11.05.2023 | | | **Time:** 10.30 am – 12.30 pm | | | |

| Knowledge Levels (KL) | K1 – Remembering | K3 – Applying | K5 – Evaluating |
|---|---|---|---|
| | K2 - Understanding | K4 – Analysing | K6 – Creating |

**Part A – 12x2 = 24 Marks**

| | | | |
|---|---|---|---|
| 1. | Distinguish fan in and fan out. | CO3 | K2 |
| 2. | Define design heuristic. | CO3 | K2 |
| 3. | What are the levels at which testing is done? | CO4 | K1 |
| 4. | State the reasons behind to perform white box testing? | CO4 | K2 |
| 5. | What is black box testing? | CO4 | K1 |
| 6. | State the purpose of stub and driver in unit testing. | CO4 | K2 |
| 7. | What are the various types of system testing? | CO4 | K1 |
| 8. | Compare size-oriented with function-oriented metrics. | CO5 | K2 |
| 9. | Mention the types of COCOMO model. | CO5 | K1 |
| 10. | List the basic principles of project scheduling. | CO5 | K1 |
| 11. | Mr. Koushan is a project manager on a project to build a new cricket stadium in Mumbai, India. After six months of work, the project is 27% complete. At the start of the project, Koushan estimated that it would cost $50,000.000, What is the Earned Value? | CO5 | K3 |
| 12. | How is the software risks assessed? | CO5 | K2 |

**Part B – 3x12 = 36 Marks**

| No. | | Question | Marks | CO | KL |
|---|---|---|---|---|---|
| 13. | (a) | What is modularity? State its importance and explain cohesion and coupling types with an example. | 12 | CO3 | K2 |
| | | OR | | | |
| | (b) | Explain the steps involved in conducting component level design when it is applied for object oriented system. | 12 | CO3 | K2 |

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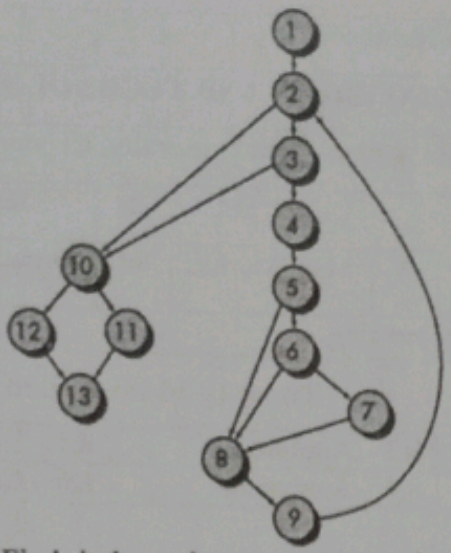
|---|---|---|---|---|---|
| 14. | (a) |  <br>Find independent program paths for the above flow graph using cyclomatic complexity value. | 12 | CO4 | K3 |
| | | OR | | | |
| | (b) | Discuss the various Integration and Debugging strategies followed in software development. | 12 | CO4 | K2 |
| 15. | (a) | Compute function point value for a project with the following information domain characteristics.<br>No. of external inputs-30<br>No. of external outputs-52<br>No. of external inquiries-22<br>No. of files-12<br>No. of external interface files-2<br>Assume complexity adjustment values for above are average (4, 5, 4,10,7 respectively).<br>A review of historical data indicates average productivity for systems of this type is 6.5 FP/pm and average labor rate is $6000 per month. Calculate the cost per function point, Total estimated project cost and total estimated project effort. | 12 | CO5 | K3 |
| | | OR | | | |
| | (b) | Explain in detail about the risk management in a software development life cycle. | 12 | CO5 | K3 |

Faculty Incharge

Approved

HOD 5/5/23