

**Course Code: 20MCA107****Course Name: ADVANCED SOFTWARE ENGINEERING****Max. Marks: 60****Duration: 3 Hours****PART A***Answer all questions, each carries 3 marks.***Marks**

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|----|-----------------------------------------------------------------|-----|
| 1  | How do you measure software reliability?                        | (3) |
| 2  | What is COCOMO estimation model?                                | (3) |
| 3  | What are the four dimensions of software quality?               | (3) |
| 4  | Explain the three states in which files reside in Git.          | (3) |
| 5  | What are the characteristics of a design class?                 | (3) |
| 6  | Write about any three key classes in xUnit architecture.        | (3) |
| 7  | List out the steps in agile methodology.                        | (3) |
| 8  | Explain decision table testing with suitable diagram.           | (3) |
| 9  | What are the benefits of configuration management?              | (3) |
| 10 | Distinguish between build automation and deployment automation. | (3) |

**PART B***Answer any one question from each module. Each question carries 6 marks.***Module I**

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|----|-------------------------------------------------------------------------|-----|
| 11 | Draw a waterfall model and explain the life cycle of a software system. | (6) |
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**OR**

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| 12 | Prepare a basic software requirement specification for basic library system. | (6) |
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**Module II**

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|----|----------------------------------------------------------------------------|-----|
| 13 | What is a Git repository? Explain the process of Cloning a Git repository. | (6) |
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**OR**

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| 14 | Explain how to view the commit history in Git. Write the syntax of the commands used. | (6) |
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**Module III**

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|----|---------------------------------------|-----|
| 15 | Explain the concepts of Anti-pattern. | (6) |
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**OR**

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| 16 | What are single condition tests and expected error tests in Unit Test? Explain | (6) |
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**Module IV**

- 17 Explain the meetings involved in scrum software development methodology. (6)  
OR  
18 What is blackbox testing? Explain. (6)

**Module V**

- 19 Define continuous integration. Explain the essential practices required for (6) continuous integration.  
OR  
20 With a neat diagram, explain deployment pipeline and the various stages of (6) deployment pipeline.

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