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 **PRESIDENCY UNIVERSITY**

**Bengaluru**

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| **End - Term Examinations – MAY 2025** |
| **Date:** 22-05-2025 **Time:** 09:30 am – 12:30 pm |

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| **School:** SOCSE | **Program:** B. Tech-CDV | |
| **Course Code :** CSE3045 | **Course Name:** Development Automation | |
| **Semester**: VI | **Max Marks**:100 | **Weightage**: 50% |

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| **CO - Levels** | **CO1** | **CO2** | **CO3** | **CO4** |
| **Marks** | 26 | 26 | 26 | 22 |

**Instructions:**

1. *Read all questions carefully and answer accordingly.*
2. *Do not write anything on the question paper other than roll number.*

**Part A**

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| **Answer ALL the Questions. Each question carries 2marks. 10Q x 2M=20M** | | | | |
| 1. | State the purpose of code generators in software automation | 2 Marks | L1 | CO1 |
| 2. | Name two system automation scenarios that prevent errors | 2 Marks | L1 | CO1 |
| 3. | Explain why automating the LAMP stack installation saves time | 2 Marks | L1 | CO1 |
| 4. | Describe the role of file permission automation in system security | 2 Marks | L1 | CO2 |
| 5. | Write a Cron expression to run a backup script every weekday at 10 PM | 2 Marks | L1 | CO2 |
| 6. | Write a Makefile target to clean all .o files in a directory | 2 Marks | L2 | CO3 |
| 7. | Analyze the impact of automating log archiving on system performance. | 2 Marks | L2 | CO4 |
| 8. | Compare the use of suffix rules versus pattern rules in Makefiles | 2 Marks | L2 | CO3 |
| 9. | Evaluate the effectiveness of using Make for small-scale projects | 2 Marks | L2 | CO3 |
| 10. | Design a Bash script snippet to alert if disk usage exceeds 85% | 2 Marks | L2 | CO2 |

**Part B**

**Answer the Questions. Total Marks 80M**

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| 11. | A. | Define the role of automated build processes in software delivery automation | 10 Marks | L1 | CO3 |
| Or | | | | | |
| 12. | A. | List the essential aspects of RAD and their significance in development | 10 Marks | L1 | CO3 |

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| 13. | A. | Explain how automating file restoration from a recycle bin enhances user experience | 10 Marks | L1 | CO2 |
| Or | | | | | |
| 14. | A. | Write a Bash script to move files older than 7 days to an archive directory | 10 Marks | L1 | CO2 |

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| 15. | A. | Describe the benefits of automating system information collection for monitoring. | 10 Marks | L2 | CO4 |
| Or | | | | | |
| 16. | A. | Compare the resource efficiency of automated deployment versus manual deployment in DevOps | 10 Marks | L2 | CO4 |

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| 17. | A. | Write a Cron job to run a script that checks disk usage every 30 minutes | 10 Marks | L2 | CO2 |
| Or | | | | | |
| 18. | A. | Develop a Bash script to validate and execute a user-provided Linux command | 10 Marks | L2 | CO2 |

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| 19. | A. | Compare the performance of Cron-based scheduling versus real-time automation tools | 10 Marks | L3 | CO4 |
| Or | | | | | |
| 20. | A. | Analyze the impact of automating email server summaries on administrative efficiency | 10 Marks | L3 | CO4 |

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| 21. | A. | State the categories of code generators and their roles in automation | 10 Marks | L1 | CO1 |
| Or | | | | | |
| 22. | A. | Differentiate between automatic variables and special built-in targets in Makefiles | 10 Marks | L4 | CO1 |

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| 23. | A. | Assess whether RAD is suitable for projects with frequently changing requirements | 10 Marks | L5 | CO3 |
| Or | | | | | |
| 24. | A. | Justify the use of automated deployment in small-scale DevOps environments | 10 Marks | L5 | CO3 |

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| 25. | A. | State the phases of Rapid Application Development (RAD) and their purposes | 10 Marks | L1 | CO1 |
| Or | | | | | |
| 26. | A. | Define the components of a Continuous Delivery Pipeline and list its key stages. | 10 Marks | L1 | CO1 |