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**PRESIDENCY UNIVERSITY**

**Bengaluru**

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| **End - Term Examinations – JANUARY 2025** |
| Date: 07 – 01- 2025 Time: 09:30 am – 12:30 pm |

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| **School:** SOCSE | **Program:** B. Tech-ISR | |
| **Course Code:** CSE3211 | **Course Name:** Advanced Automation Design and Development | |
| **Semester**: VII | **Max Marks**: 100 | **Weightage**: 50% |

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| **CO - Levels** | **CO1** | **CO2** | **CO3** | **CO4** | **CO5** |
| **Marks** | **14** | **14** | **26** | **46** | **NA** |

**Instructions:**

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

**Part A**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Answer ALL the Questions. Each question carries 2marks. 10Q x 2M=20M** | | | | |
| **1** | List any two benefits of automation implementation. | **2 Marks** | **L1** | **CO1** |
| **2** | What is the use of the Immediate Panel in debugging? | **2 Marks** | **L1** | **CO1** |
| **3** | Explain the various states of a State Machine in UiPath. | **2 Marks** | **L2** | **CO2** |
| **4** | Describe how State Machines are applied in real world scenarios. | **2 Marks** | **L1** | **CO2** |
| **5** | Differentiate between various types of connections in Orchestrator. | **2 Marks** | **L2** | **CO3** |
| **6** | Illustrate how the Invoke Method activity is used in UiPath workflows. | **2 Marks** | **L2** | **CO3** |
| **7** | Explain the role of alerts in monitoring Orchestrator activities. | **2 Marks** | **L2** | **CO3** |
| **8** | How does LINQ help improve performance in UiPath automation? | **2 Marks** | **L1** | **CO4** |
| **9** | Provide an example of LINQ for filtering and grouping data in a Data Table. | **2 Marks** | **L2** | **CO4** |
| **10** | Explain the benefits of using Computer Vision in UiPath automation. | **2 Marks** | **L2** | **CO4** |

**Part B**

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| **Answer the Questions Total 80 Marks.** | | | | | |
| **11.** | **a.** | Explain in detail about the comprehensive methodology for implementing automation in business processes, including its benefits and challenges. | **10 Marks** | **L2** | **CO1** |
|  | **b.** | Illustrate the blocks of a State Machine and discuss transitions with a real time project example. | **10 Marks** | **L2** | **CO2** |
| **Or** | | | | | |
| **12.** | **a.** | Interpret the significance of UiPath’s Object Repository, Workflow Analyzer, and Test Suite, and their impact on automation development and maintenance. | **10 Marks** | **L2** | **CO1** |
|  | **b.** | Explain the Dispatcher Performer model in UiPath and how does it work. | **10 Marks** | **L2** | **CO2** |
|  |  |  |  |  |  |
| **13.** | **a.** | Summarize the various connection types available in Orchestrator and propose an optimal configuration for a secure and scalable automation environment. | **20 Marks** | **L2** | **CO3** |
| **Or** | | | | | |
| **14.** | **a.** | Demonstrate the best practices to utilize Orchestrator effectively for job prioritization, robot monitoring, and resource optimization. | **20 Marks** | **L2** | **CO3** |

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| **15.** | **a.** | Explain the Invoke Method activity in detail and explore its application through real-world use cases in complex automation workflows. | **20 Marks** | **L2** | **CO4** |
| **Or** | | | | | |
| **16.** | **a.** | Summarize the practical benefits of using LINQ queries in UiPath automation. | **20 Marks** | **L2** | **CO4** |

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| **17.** | **a.** | Explain the principles of LINQ to manipulate data effectively in UiPath workflows. | **20 Marks** | **L2** | **CO4** |
| **Or** | | | | | |
| **18.** | **a.** | Explain the benefits and challenges of using the WebDriver protocol in UiPath automation with suitable example. | **20 Marks** | **L2** | **CO4** |

**\*\*\*\*\* BEST WISHES \*\*\*\*\***