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B.M.S. College of Engineering, Bengaluru-560019

Autonomous Institute Affiliated to VTU

June 2025 Semester End Main Examinations

Programme: B.E.

Semester: VII

Branch: Computer Science and Engineering

Duration: 3 hrs.

Course Code: 22CS7PERPA

Max Marks: 100

Course: Robot Process Automation Design and Development

Instructions: 1. Answer any FIVE full questions, choosing one full question from each unit.
2. Missing data, if any, may be suitably assumed.

UNIT - I			CO	PO	Marks	
Important Note: Completing your answers, compulsorily draw diagonal cross lines on the remaining blank pages. Revealing of identification, appeal to evaluator will be treated as malpractice.	1	a)	Identify any four industries, which can take benefits from Robotic Process Automation and explain the same.	CO2	PO 2	8
		b)	List out any four Robotic Process Automation platforms.	CO1	PO1	4
		c)	Explain the uses of the following: i) UiPath Studio ii) UiPath Orchestrator	CO2	PO2	8
OR						
	2	a)	State the purposes and uses of the following: i) Project Panel ii) Activity Panel	CO2	PO2	8
		b)	Differentiate between automatic recorder and manual recorder in Robotic Process Automation (Any Four).	CO2	PO2	4
		c)	Write down the steps to create a bot using the automatic recorder feature in UiPath Studio to empty the recycle bin.	CO1	PO1	8
UNIT - II						
	3	a)	Demonstrate the use of the “For Each” activity and “Switch” activity in UiPath Studio by creating a bot that iterates through a list of students’ marks (of five courses) and categorizes them into grades (A, B, C, or Fail). For example, Mark: 85 = Grade: A, Mark: 72 = Grade: B, Mark: 65 = Grade: C, Mark: 50 = Grade: Fail, Mark: 40 = Grade: Fail.	CO1	PO1	8
		b)	Differentiate between sequence and flowchart in Robotic Process Automation.	CO2	PO2	4

	c)	Create a bot in UiPath Studio that processes a predefined list of numbers (For example: 10, 20, 30, 40, 50). For each number, the bot should multiply it by 2. If the result exceeds 60, the bot must exit the loop immediately. Additionally, introduce a 2-second pause between processing each number. The bot should output the results for all processed numbers before terminating.	CO3	PO3	8
		OR			
4	a)	Illustrate the need of arguments in Robotic Process Automation with an example.	CO1	PO1	8
	b)	List out four scenarios, where Data table can be used in Robotic Process Automation.	CO2	PO2	4
	c)	Write down the steps for creating a bot to perform the following operation on the excel file: i) Read range of values ii) Append range of values	CO1	PO1	8
		UNIT - III			
5	a)	Illustrate the uses of keyboard activities in UiPath Studio with an example.	CO1	PO1	8
	b)	List out any four benefits of UiExplorer in UiPath Studio.	CO2	PO2	4
	c)	Describe the strategies and entities used by Robotic Process Automation developers use to address common failure points in automation workflows. Explain (Any Four).	CO2	PO2	8
		OR			
6	a)	Explain the uses of the following: i) PDF plugin ii) Word plugin	CO2	PO2	8
	b)	Differentiate between JSON and SOAP.	CO2	PO2	4
	c)	Create a bot to perform the following operations in UiPath Studio: i) Store user credentials ii) Retrieve the stored credentials iii) Request user credentials during runtime iv) Deletes the stored credentials.	CO3	PO3	8
		UNIT - IV			
7	a)	List out and explain system trigger events in UiPath Studio.	CO1	PO1	8
	b)	State the purposes of attended and unattended robots in Robotic Process Automation.	CO2	PO2	4

		c)	How can a bot be launched based on a specific keyboard event (Ctrl + A)? Demonstrate with an example.	CO3	PO3	8
			OR			
8	a)	Define exception handling and also demonstrate handling of exceptions with an example.		CO1	PO1	8
	b)	State the purposes of the following: i) Logging ii) Debugging		CO2	PO2	4
	c)	Write down the steps that the RPA developer has to follow in order to deal with the crashed process in UiPath Studio.		CO2	PO2	8
			UNIT - V			
9	a)	Describes some of the best practices that must be considered while working on a project in UiPath Studio.		CO1	PO1	8
	b)	When to use Flowcharts, State Machines, or Sequences?		CO2	PO2	4
	c)	Explain the following: i) Nesting workflows ii) Reusability of workflows		CO1	PO1	8
			OR			
10	a)	How to publish a workflow in UiPath Studio? Explain.		CO1	PO1	8
	b)	List out different types of asset values and also state the purpose of each of them.		CO2	PO2	4
	c)	Explain the steps that need to be followed to distribute the packages for the robots available in Orchestrator.		CO1	PO1	8
