CMR COLLEGE OF ENGINEERING & TECHNOLOGY
(UGC AUTONOMOUS)

Examination	:	M.Tech II Semester Supplementary Examinations March-2025
Course Name	:	Advanced Computer Architecture
Course Code	:	B458305
Branch	:	Computer Science & Engineering
Date & Session	:	20-03-2025 AN

Duration: 3 hours   Max. Marks: 60

(Note: Assume suitable data if necessary)

PART-A
Answer all TEN questions
Each question carries ONE mark.   10x1=10M

1. Define parallelism.   1 M
2. What is system interconnect architecture?   1 M
3. Define scalable performance.   1 M
4. What are speedup performance laws?   1 M
5. Differentiate between linear and non-linear pipeline processors.   1 M
6. Describe the key aspects of instruction pipeline design.   1 M
7. List the three generations of multicomputer.   1 M
8. Explain the concept of cache coherence.   1 M
9. What are the principles of vector processing?   1 M
10. What is the connection machine CM-5?   1 M

PART-B
Answer the following. Each question carries TEN Marks.   5x10=50M

11.A). Explain the theory of parallelism with types and examples.   10M

OR

11. B). Explain Multi processors and Multi computers.   10M

12. A). Compare and contrast superscalar and vector processors in terms of their performance characteristics.   10M

OR

12. B). Describe the parallel processing applications.   10M

13. A). Describe the different types of pipeline hazards and how they are resolved.   10M

OR

13. B). Explain shared-memory organizations and their working mechanisms.   10M

14. A). Design a message-passing scheme for a specific parallel application.   10M

OR

14. B). Describe scalable architectures with examples and advantages.   10M

15. A). Compare SIMD computer organizations with MIMD architectures.   10M

OR

15. B). Evaluate the architecture and performance of the connection machine CM-5.   10M

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Examination	:	M.Tech II Semester Supplementary Examinations March-2025
Course Name	:	Robotic Process Automation
Course Code	:	B458412
Branch	:	Computer Science & Engineering
Date & Session	:	25-03-2025 AN Duration: 3 hours Max. Marks: 60

(Note: Assume suitable data if necessary)

PART-A
Answer all TEN questions
Each question carries ONE mark.
10x1=10M

1. How to create a bot? — 1 M
2. Identify how to use RPA in the industry 4.0 — 1 M
3. List the roles of dashboard in the web control room. — 1 M
4. What are the main functions of bots? — 1 M
5. Demonstration the activities of audit log in the RPA. — 1 M
6. Illustrate the workload design of RPA. — 1 M
7. Mention the various recorders in bots creates. — 1 M
8. Which are the commands used in bots? — 1 M
9. Define The PGPI commands and usage. — 1 M
10. Illustrate how to working an error handling command in the RPA. — 1 M

PART-B
Answer the following. Each question carries TEN Marks.
5x10=50M

11.A). Describe RPA, where it can be applied and how its implementation. — 10M

OR

11. B). Demonstrate, way to create bots with advanced features and capabilities. — 10M

12. A). Identify and understand Web Control Room and introduction. — 10M

OR

12. B). Illustrate how the bots can view, uploaded and credential. — 10M

13. A). Understand how to handle various devices and workload. — 10M

OR

13. B). Importance in the demo of exposed APIs and conclusion. — 10M

14. A). What is the processes of bot creators, web recorders and task editors. — 10M

OR

14. B). How to be working database command, string operation command and XML command in the bot creation. — 10M

15. A). Discuss the terminal emulator commands and integration command. — 10M

OR

15. B). Explain how to manage windows control command and workflow designer in RPA. — 10M

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