M.Sc. DEGREE EXAMINATION — JUNE 2018.

First Year

COMPUTER ARCHITECTURE

Time: 3 hours Maximum marks: 75

PART A — $(5 \times 5 = 25 \text{ marks})$

Answer any FIVE questions.

- 1. Explain about Feng's classification.
- 2. Write about parallel processing applications.
- 3. Describe about utilizing data parallelism.
- 4. Discuss about the delays in pipeline execution.
- 5. Explain about hazard detection and execution.
- 6. Write about the overview of Single Instruction Multiple Data.
- 7. Explain about matrix operations.

PART B — $(5 \times 10 = 50 \text{ marks})$

Answer any FIVE questions.

- 8. Explain in detail about Flynn's Classification with diagram.
- 9. Write brief notes on parallelism in uniprocessor systems.
- 10. Describe in detail about data parallel processing with specialized processor.
- 11. Explain in detail about classification of pipeline processors.
- 12. Discuss briefly about vector processing requirements and characteristics.
- 13. Describe in detail about exchange of omega networks.
- 14. Explain in detail about models of computation.

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