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Roll No. .....

# D-180316

### B. Tech. EXAMINATION, 2018

Semester VII (CBS)

### ADVANCE COMPUTER ARCHITECTURE

CS-701

Time: 3 Hours

Maximum Marks: 60

The candidates shall limit their answers precisely within the answer-book (40 pages) issued to them and no supplementary/continuation sheet will be issued.

#### Part A

## (Compulsory Question)

Note: Attempt all questions.

2×10=20

- .. Describe Flynn's classification of parallel computers.
- 2. Differentiate between WAR and RAW hazards.
- 3. What is the associative mapping technique?
- 4. Compare between RISC and CISC.
- 5. What is memory interleaving technique? (3-15/14) W-D-180316

P.T.O.

- 6. What do you mean by "Data Flow Computer" ?
- 7. What is Synchronization?
- 8. What is multistage switching network?
- 9. What are data dependencies and hazards?
- 10. What is Multi-threading?

#### Part B

Note: Attempt all questions.

 $4 \times 10 = 40$ 

11. (a) With simple diagram, explain Data flow architecture and compare it with control flow architecture.

Or

- (b) Describe the distribution and shared memory model of SIMD architecture.
- 12. (a) What is Cache Memory? Define global miss and local miss with suitable example.

Or

(b) Both vector processors and array processors are specialized to operate on vectors. What are the main differences between them?

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13. (a) Define the various types of vector instructions. What do you mean by multiprocessor system?

Or

- (b) What are the similarities and dissimilarities between multiprocessor system and multiple computer system? Write a short note on vectorizing compliers.
- 14. (a) Distinguish between loosely coupled and tightly coupled multiprocessor architecture. Which architecture is better and why?

Or

(b) Compare between centralized and distributed shared memory architecture. Which is the best architecture among them and why?

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