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Roll No. ....

**F185**

**B. Tech. EXAMINATION, May 2019**

(Sixth Semester)

(B. Scheme) (Main & Re-appear)

(IT)

IT310B

PARALLEL COMPUTING

*Time : 3 Hours]*

*[Maximum Marks : 75*

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Before answering the question-paper candidates should ensure that they have been supplied to correct and complete question-paper. No complaint, in this regard, will be entertained after the examination.

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**Note :** Attempt any *Five* questions. All questions carry equal marks.

(2-09/8) M-F185

**P.T.O.**

### Unit I

1. What do you mean by parallel computing ?  
Different parallel architectures. **15**
2. Explain parallel programming models in detail. **15**

### Unit II

3. Explain memory system used in pipelined processors. **15**
4. Write short notes on the following :
  - (a) Dynamic Instruction Scheduling
  - (b) Branch Prediction
  - (c) Pipeline Performance. **5×3=15**

### Unit III

5. Explain SIMD architecture with example. How it is different from MIMD. **15**
6. Explain SIMD parallel algorithms. **15**

### Unit IV

7. Describe the following :
  - (a) Network Classification **7**
  - (b) Permutation used in Interconnection networks. **8**
8. Explain cross bars and other commonly used interconnection networks. **15**