

Exam. Code : 208601

Subject Code : 4696

M.Sc. (IT) Semester—I

**ADVANCED COMPUTER ORGANIZATION AND  
ARCHITECTURE**

**Paper—MIT-103**

Time Allowed—3 Hours]

[Maximum Marks—100

**Note :—**Attempt any **FIVE** questions. All questions carry equal marks.

1. What is a MIMD array processor ? Explain computer Organization and Inter PE-Communications. 20
2. What are the various combinational circuits used in the parallel computing ? 20
3. Explain the following :—
  - (i) Kung's Taxonomy
  - (ii) General pipelines and Reservation Tables
  - (iii) Combinational Circuits
  - (iv) SIMD. 5×4=20
4. What is PRAM Model ? Explain the characteristics of PRAM Model with example. 20
5. Explain the working procedure of SPMD Model. 20

6. Explain the architectural classification schemes. Explain pipeline computer and multiprocessor system. 20
7. Explain the Basic Uniprocessor Architecture with its organization and working environment. Also write down its advantages. What are interconnection RAMs ? 20
8. (A) Differentiate between parallel and pipelined processing. 10
- (B) Differentiate between Masking and Data Routing Mechanisms. 10