

Roll No.

Total Pages : 2

BT-7/D-23

47426

ADVANCE COMPUTER ARCHITECTURE

Paper-PE-CS-AIML-415A

Time Allowed : 3 Hours] [Maximum Marks : 75

Note : Attempt **five** questions in all, selecting at least **one** question from each Unit. All questions carry equal marks.

UNIT-I

1. (a) What is the need of Parallel computing? 7
(b) Explore the working process of parallel computing with proper diagram. 8
2. (a) Explain the Architecture and mechanism of Uniprocessor system. 7
(b) Discuss the performance evaluation of Multivector computers. 8

UNIT-II

3. (a) Elaborate the types of dependencies in instruction level parallelism. 7
(b) Explain the Computational techniques that can be used to explore thread level parallelism. 8

4. (a) What is program partitioning and scheduling in Computer architecture? 7
- (b) What are different approaches for Hardware and Software parallelism? 8

UNIT-III

5. (a) Describe the different types of Parallel programming techniques. 7
- (b) Explain various ways to measure the performance of parallel algorithms. 8
6. (a) What is Vectorization? Define the Design of a vectorizing compiler. 7
- (b) Compare the functionality of array processor and vector processors. 8

UNIT-IV

EXAMKIT

7. (a) Explore the basic structure of linear pipeline processor. 7
- (b) Discuss the classification of Pipeline processor based on Pipeline configuration. 8
8. What are different types of Pipeline design? How to implement the concept of Multiply and Divide pipeline design ? 15