

# ED-794

M.Sc. 4th Semester Examination, May-June 2021

### **COMPUTER SCIENCE**

Elective - II

Paper - III

## Advanced Computer Architecture

Time: Three Hours [Maximum Marks: 100]

**Note**: Answer any **two** parts from each questions. All questions carry equal marks.

#### Unit-I

- **1.** (a) What is Flynn's classification of computers?
  - (b) Explain Feng's classification and also write the limitation of Feng's classification.
  - (c) What is Parallel computing? And also write its types.

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(Turn Over)

#### **Unit-II**

- **2.** (a) Define Interconnection Networks. Also write the benefits and types.
  - (b) Differentiate between Network Blocking and Non-blocking architecture.
  - (c) What is a benchmark? Also write the different types of benchmark.

#### **Unit-III**

- **3.** (a) What is Pipelining? Also explain its types.
  - (b) Write the difference between Linear and Non-linear pipeline.
  - (c) Write short notes on 'Arithmetic Pipeline'.

#### **Unit-IV**

- **4.** (a) Distinguish between typical RISC and CISC processor architecture.
  - (b) Explain design space of processors.
  - (c) What is VLIW ? Also explain the architecture of VLIW with an example.

#### Unit-V

**5.** (a) Explain parallel algorithms for matrix multiplication.

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(b) Explain sorting on a linear array.

(c) Describe ISO efficiency concept.

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