



# GOVERNMENT COLLEGE OF ENGINEERING, JALGAON

(An Autonomous Institute of Government of Maharashtra)

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Name of Examination : **Summer 2021** - (Preview)

Course Code & Course Name : **ET352U - Computer Architectures**

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Maximum Marks : **60**

Duration : **3 Hrs**

[Edit](#) [Print](#) [View Answer Key](#) [Close](#) **Answer Key Submission Type:** Marking scheme with model answers and solutions of numerical

Instructions:

1. All questions are compulsory.
2. Illustrate your answer with suitable figures/sketches wherever necessary.
3. Assume suitable additional data; if required.
4. Use of logarithmic table, drawing instruments and non programmable calculators is allowed.
5. Figures to the right indicate full marks.

- 1) Answer any two of the following questions.
  - a) What is Parallel computing ? Explain the types of Parallel Computing? [6]
  - b) Explain Intel Itanium Processor (IA64). [6]
  - c) Explain applications of parallel processing. [6]
- 2) Answer the following
  - a) Explain VERY LONG INSTRUCTION WORD (VLIW) processor? [6]
  - b) What is pipelining? Explain the classification of pipelining processors. [6]
- 3) Answer any two of the following questions.
  - a) Describe the pipelining hazards? [6]
  - b) Differentiate between static Vs dynamic network. [6]
  - c) Write short notes on:
    1. Interconnection networks of SIMD [3]
    2. Mesh interconnection network [3]
- 4) Answer the following
  - a) Explain Massively Parallel Processors (MPP)? [6]
  - b) Explain Cluster and Network of Work Stations (COW's and NOW's)? [6]
- 5) Answer any two of the following questions.
  - a) What are Multi-threaded processors? Explain principles of multi-threading. [6]
  - b) Explain parallel programming techniques? [6]
  - c) Write short notes on:
    1. Shared memory programming [3]
    2. Data parallel programming [3]

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