B. Tech. DEGREE EXAMINATION, MAY - 2015

(Examination at the end of Final Year)

COMPUTER SCIENCE

| Paper - II : Advanced Computer Architecture | | | |
|---------------------------------------------|-----------------------|-------------------------------------------------------------------|----------------------|
| Time: 3 Hours | | | Maximum Marks: 75 |
| | | Answer question No. 1 compulsory | (15) |
| | | Answer ONE question from each unit | $(4 \times 15 = 60)$ |
| 1) | Write short notes on: | | |
| | a) | SIMD computer. | |
| | b) | Pipeline processing. | |
| | c) | Hierarchical bus systems. | |
| | d) | Cache Coherence. | |
| | e) | Compilers. | |
| | | <u>Unit - I</u> | |
| 2) | Wha | t is parallelism? What are the various conditions of parallelism. | |
| | | OR | |
| 3) | a) | Compare and contrast static interconnection and dynamic interc | connection networks. |
| | b) | What are the characteristics of SIMD computers? | |
| | | | |

<u>Unit - II</u>

Briefly explain about linear pipeline processor. 4)

OR

5) Discuss about the throughput and efficiency in linear pipeline processor.

<u>Unit - III</u>

6) Explain about multithreaded architectures.

OR

7) Discuss message passing mechanism in detail.

<u>Unit - IV</u>

8) List and explain parallel programming models with examples.

OR

9) Discuss the relation between parallel languages and compilers.

κβκβ