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(Pages : 2)

Name...

Reg. No...

EIGHTH SEMESTER B.TECH. (ENGINEERING) [2014 SCHEME] DEGREE EXAMINATION, APRIL 2018

Computer Science Engineering

CS/IT 14 801—COMPUTER ARCHITECTURE AND PARALLEL PROCESSING

Time : Three Hours

Maximum : 100 Marks

Part A

Answer any **eight** *questions.*
Each question carries 5 marks.

(1) Enumerate the tasks of a computer designer.

(2) What is the use of compiler ?

(3) What is the need for dynamic scheduling ?

(4) Bring out the purpose of an interpreter.

(5) Write short notes on enhancing vector performance.

(6) What do you mean by cache miss ?

(7) Write short notes various protection mechanisms for virtual memory.

(8) Write a short note on protection in Intel Pentium Processor.

(9) What do you mean by Internet ?

(10) Distinguish between a uniprocessor and a multiprocessor.

(8 × 5 = 40 marks)

Part B

Answer **all** *questions.*

(11) (a) Explain in detail about quantitative principles of compiler design.

Or

(b) With a neat sketch, explain in detail about DLX Architecture and its pipelining mechanisms.

(12) (a) Explain in detail about Instruction Level Paralleism concepts and challenges encountered in the same.

Or

(b) With a neat sketch explain in detail about vector processing and its architecture.

Turn over

(13) (a) Explain in detail the memory hierarchy design with a neat sketch.

Or

(b) Explain in detail about a case study on Unix File System performance.

(14) (a) Explain in detail about the practical issues in connecting more than two computers.

Or

(b) Explain in detail about various application domains of multiprocessor.

(4 × 15 = 60 marks)