

TED (10)–3068

(REVISION–2010)

Reg. No. ....

Signature .....

THIRD SEMESTER DIPLOMA EXAMINATION IN ENGINEERING/  
TECHNOLOGY—OCTOBER, 2014

**COMPUTER ARCHITECTURE**

(Common for CM, CT and IF)

[Time : 3 hours

(Maximum marks : 100)

PART—A

(Maximum marks : 10)

Marks

I Answer the following questions in one or two sentences. Each question carries 2 marks.

1. Define interpreter.
2. Define RISC.
3. Define interrupt.
4. Explain the use of flash memory.
5. Define pipelining.

(5×2=10)

PART—B

(Maximum marks : 30)

II Answer *any five* of the following questions. Each question carries 6 marks.

1. Explain memory operations in detail.
2. Compare CISC and RISC.
3. Explain about DMA.
4. Explain about cache memory mechanism.
5. Explain about register transfers.
6. Explain about microinstruction.
7. Explain the basic idea of instruction pipelining.

(5×6=30)

PART—C

(Maximum marks : 60)

(Answer *one* full question from each unit. Each full question carries 15 marks.)

UNIT—I

- III (a) Explain the basic input-output operations in a computer with the help of a bus diagram. 10
- (b) Explain about bus structures. 5

OR

	Marks
IV Explain in detail the basic functional units of a computer with a diagram.	15
UNIT—II	
V Explain about interface circuits-parallel port and serial port.	15
OR	
VI Explain about PCI bus, SCSI bus and universal serial bus.	15
UNIT—III	
VII (a) Explain about memory system considerations.	8
(b) Explain about rambus memory.	7
OR	
VIII Explain about secondary storage devices - magnetic harddisk, optical disk and magnetic tape system.	15
UNIT—IV	
IX Explain about microprogrammed control of generating control signals.	15
OR	
X Explain the execution of a complete instruction.	15

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