



VEERMATA JIJABAI TECHNOLOGICAL INSTITUTE
[Central Technological Institute, Maharashtra State]
Matunga, Mumbai-400 019
END SEMESTER EXAMINATION

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SEMESTER EXAMINATION:	IV	DATE OF EXAM	23/4/14
SEMESTER & PROGRAM:	S.Y B Tech Comp	TIME:	1:30 to 4:30 pm.
TIME ALLOWED	3 HRS.	MARKS:	100
COURSE :	COAM CO0206		

- Instructions
1. All questions compulsory.
 2. Figures to right indicate full marks.

- Q.1 a. Compare Computer Organization and Computer architecture with example. 04
- b. What is troubleshooting? Explain Nature and types of faults. 06
- c. What are the different I/O techniques? Explain DMA. 10
- Q.2 a. Explain multiplication of signed numbers -13×-5 using Booth's algorithm. 06
- b. Solve: 4
- i) $-35 + (-11)$
- ii) $19 - (-11)$
- c. What is virtual memory? Explain role of paging and segmentation. 10
- Q.3 a. What is difference between sequential and pipeline processor? Explain the stages of pipeline processor in detail. 10
- b. A computer has a 256 KByte, 4-way set associative, write back data cache with block size of 32 Bytes. The processor sends 32 bit addresses to the cache controller. Each cache tag directory entry contains, in addition to address tag, 2 valid bits, 1 modified bit and 1 replacement bit. What will be number of bits in the tag field of an address? 03
- c. Explain different types of ROM. 07
- Q.4 a. Explain associative mapping with example in detail. 10
- OR
- a. Explain types of operations in detail.
- b. Explain how interrupt is recognized? Explain the interrupt execution cycle. 10
- Q.5 a. Write in detail about RAID. 10
- b. What is preventive maintenance? Explain the types of maintenance in detail. 10

OR