

Computer Architecture & Organisation

Con. 3011-09.

(REVISED COURSE)

VR-5157

(3 Hours)

[Total Marks : 100

3 p.m. to 6 p.m.

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N.B. : (1) Question No. 1 is **compulsory**.(2) Attempt any **four** questions out of remaining **six** questions.(3) Assume suitable data wherever **necessary**.

1. (a) With the help of neat diagram explain working of microprogrammed control unit. 10
(b) What do you mean by bus arbitration ? Explain different bus arbitration techniques. 10
2. (a) Explain Flynn's classification of parallel processing systems. 10
(b) Explain design of GCD processor (Using any one method). 10
3. (a) Compare RISC and CISC. 10
(b) Compare SRAM and DRAM. 10
4. (a) Explain four stage floating point adder pipeline. 10
(b) Which are the different mapping techniques used for Cache memory ? Explain any one in detail. 10
5. (a) Write the necessity of page replacement algorithm ? List different page replacement algorithms. Explain any one algorithm. 10
(b) Distinguish Interput driven I/O and programmed I/O. 10
6. (a) Discuss restoring division method for signed numbers. 10
(b) Explain steps involved in design of ALU with example. 10
7. (a) With the help of block diagram explain concept of DMA. 10
(b) Explain I/O. procesor and CPU interaction with suitable block diagram. 10