Government College of Engineering, Amravati

(An Autonomous Institute of Government of Maharashtra)

Third Semester B. Tech. (Computer Science and Engineering)

Summer Term - 2016

Course Code: CSU302

Course Name: Computer Organization and Architecture

Time: 2 hr 30min **Max. Marks: 60**

Instructions to Candidate

1) All questions are compulsory.
2) Assume suitable data wherever necessary and clearly state the assumptions made.
3) Diagrams/sketches should be given wherever necessary.
4) Use of logarithmic table, drawing instruments and non-programmable calculators is permitted.
5) Figures to the right indicate full marks.

1		Solve any **TWO**	
	a	What is RAID? Explain any three types of RAID in detail.	6
	b	Explain the process of data storage in CDROM.	6
	c	Explain the impact of cache on the overall performance of the compute.	6
2		Solve any **TWO**	
	a	Describe booth algorithm for multiplication with	6

an example.

	b	What do you mean by Direct Memory Access? Explain two channels DMA Controller with block diagram.	6
	c	Explain Big-Endina and Little-Endian assignment with ego.	6
3	a	Explain with an example. (i) Effective address (ii) Offset (iii) Base address	6
	b	Explain with explain various addressing modes used in computer.	6
4	a	How do you specify the operands and operation of the instruction? Explain in detail.	6
	b	Compare pipelined operation and superscalar operation.	6
5		Solve any **TWO**	
	a	How the event of any instruction cycle can be described as a sequence of micro operations?	6
	b	Describe with neat diagram the micro-programmed control unit.	6
	c	Draw and explain the architecture of Von Neumann Machine in detail.	6