

USN **1 M V**

Sir M. Visvesvaraya Institute of Technology
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TEST PAPER

TEST NO	: II	SEM	: IV
COURSE/BRANCH	: BE/ISE	MAX. MARKS	: 40
SUBJECT	: Microcontroller and Embedded Systems	DURATION	: 90 min

Instructions: Answer any two questions

Q.No	Question	Co's PO's	Bloom's Taxonomy	Marks
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PART A

1	a) What is Embedded system? Write the difference between General purpose computer and Embedded system.	CO1 PO:3,5,12	L1	6
	b) What are purpose of an Embedded System? Explain.	CO1 PO:3,5,12	L2	10
	c) Write the difference between Microprocessor and Microcontroller.	CO1 PO:3,5,12	L2	8

OR

2	a) What are the Core of the Embedded System? Explain	CO4 PO:2,3,4	L1	10
	b) Write the difference between RISC and CISC	CO1 PO:3,5,12	L2	6
	c) Write the difference between Harvard and Von-Neumann Architecture	CO1 PO:3,5,12	L2	8

PART-B

3	a) What is Little Endian and Big Endian processors?	CO4 PO:2,3,4	L1	6
	b) Write the difference between SRAM and DRAM	CO1 PO:3,5,12	L2	4
	c) Explain the working principle of I/O Device – 7 segment Display	CO1 PO:3,5,12	L2	10

OR

4	a) Explain Master and Slave communication in I2C	CO4 PO:2,3,4	L1	10
	b) Explain how DTE and DCE are helpful in RS-232 communication	CO1 PO:3,5,12	L2	6
	c) Write a note on wireless communication - Bluetooth	CO1 PO:3,5,12	L2	4

OR

5	a) What are the characteristics of an Embedded System	CO4 PO:2,3,4	L1	10
	b) Explain about the Operational quality attributes of an Embedded System	CO1 PO:3,5,12	L2	5
	c) Explain about the Non-Operational quality attributes of an Embedded System	CO1 PO:3,5,12	L2	4