

Code No.: EC57103PE

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CMR ENGINEERING COLLEGE: : HYDERABAD
UGC AUTONOMOUS
I-M.TECH-I-Semester End Examinations (Regular) - March- 2023
COMMUNICATIONS BUSES & INTERFACE (PE-I)
(VLSISD)

[Time: 3 Hours]

[Max. Marks: 60]

Note: This question paper contains two parts A and B.
Part A is compulsory which carries 10 marks. Answer all questions in Part A.
Part B consists of 5 Units. Answer any one full question from each unit. Each question carries 10 marks and may have a, b, c as sub questions.

PART-A

(10 Marks)

1. a) Define serial bus. [1M]
- b) What are the data signals used in serial bus. [1M]
- c) Mention the applications of CAN. [1M]
- d) Write short notes on data transmission. [1M]
- e) What are the PCIe protocols. [1M]
- f) Define configuration space of PCIe. [1M]
- g) What are the different types of descriptors. [1M]
- h) Define device driver in USB. [1M]
- i) Define serial communication. [1M]
- j) What is data streaming. [1M]

PART-B

(50 Marks)

2. Explain about data and control signals and their applications? [10M]
OR
3. Distinguish between RS232 and RS485. [10M]
4. Draw & explain the architecture of CAN and their advantages? [10M]
OR
5. List out the Frame formats in CAN bus. [10M]
6. Explain about the operation of configuration space. [10M]
OR
7. With a neat sketch, explain the operation of hardware protocols of PCIe. [10M]
8. Explain the operation of USB and evolution of USB2.0. [10M]
OR
9. Discuss in detail about Descriptor and contents. [10M]
10. Explain the working principle of serial communication protocols. [10M]
OR
11. Draw and explain the operation of a serial front panel data port using fiber optics. [10M]
