Code No.: EC57103PE   R20   H.T.No. [ ][ ][8][R][ ][ ][ ][ ]

CMR ENGINEERING COLLEGE: : HYDERABAD
UGC AUTONOMOUS
I–M.TECH–I–Semester End Examinations (Regular) – April - 2022
COMMUNICATION BUSES AND INTERFACES (PE-I)
(VLSI SD)

[Time: 3 Hours]   [Max. Marks: 70]

Note: This question paper contains two parts A and B.
Part A is compulsory which carries 20 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   (20 Marks)

1. a) Define serial bus? List out various types of serial buses?   [2M]
   b) Identify the applications of RS232& RS485?   [2M]
   c) List out the applications of CAN Bus?   [2M]
   d) Identify how the data is transferred in CAN Bus?   [2M]
   e) Classify various types of hardware protocols?   [2M]
   f) What are the uses of Configuration space in PCIe interface?   [2M]
   g) Explain how USB works in real time applications?   [2M]
   h) Identify various Descriptor types?   [2M]
   i) Discuss various types of serial communication protocols?   [2M]
   j) Identify the importance of optical fiber cable in SFPDP?   [2M]

PART-B   (50 Marks)

2. Discuss about RS232& RS485 in detail?   [10M]
                                OR
3. Explain with the help of neat diagram the working of SPI bus.   [10M]

4. Construct the Architecture Of CAN Bus & Explain in detail?   [10M]
                                OR
5. Explain the Frame format of CAN Bus?   [10M]

6. What is meant by PCIe? And Identify Various Revisions of PCIe ?   [10M]
                                OR
7. Define PCIe communication interface and its evolution.   [10M]

8. Explain Various transfer types of USB?   [10M]
                                OR
9. Explain in detail about USB 2.0.   [10M]

10. Determine the types of errors in serial FPDP.   [10M]
                                OR
11. Identify the importance of optical fibre cable &copper cable in SFPDP [10M]

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