

18BB1208

M. Tech. EXAMINATION, 2020

(Second Semester)

(C Scheme) (Re-appear)

(ECE (VLSI))

MTVLSI520C

COMMUNICATION BUSES AND INTERFACES

Time : 2½ Hours]

[Maximum Marks : 75

Before answering the question-paper candidates should ensure that they have been supplied to correct and complete question-paper. No complaint, in this regard, will be entertained after the examination.

Note : Attempt *Four* questions in all. All questions carry equal marks.

1. (a) Enlist the difference between :
 - (i) Serial interface and parallel interface
 - (ii) RS 232 and RS 485
- (b) What do you understand by data and control signals ? Give suitable illustrations.
2. (a) Discuss the various steps of 12C data transmission.
- (b) What are the various applications of RS 232 ?
3. (a) What is CAN protocol ? How is it implemented ?
- (b) Explain with neat diagram the CAN architecture.
4. (a) Discuss various fields in a standard CAN.
- (b) What is PCIe ? Discuss future PCIe generations.

5. (a) Explain the following :
- (i) Device descriptors
 - (ii) Configuration descriptor
 - (iii) End point descriptors.
- (b) Write a short note on USB device driver.
6. (a) Explain the following USB data transfer types :
- (i) Control transfer
 - (ii) Interrupt transfer
- (b) Discuss with neat diagram, the USB enumeration process.
7. Discuss the design and realization of SFPDP for high speed data transfer.
8. (a) Define the following :
- (i) Baud rate
 - (ii) Framing
 - (iii) Error Control
- (b) What do you understand by synchronous and asynchronous serial interface ?