

GUJARAT TECHNOLOGICAL UNIVERSITY**M. E. - SEMESTER – II • EXAMINATION – WINTER • 2014****Subject code: 2725202****Date: 03-12-2014****Subject Name: Protocols and Interfaces****Time: 02:30 pm - 05:00 pm****Total Marks: 70****Instructions:**

1. Attempt all questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.

- Q.1** (a) What is signal conditioning? What steps does signal conditioning and timing Function conditioning includes? **07**
- (b) Which five implementation technologies should be considered to plan for evolution of computers? **07**
- Q.2** (a) Explain with example branching and bit (Boolean) operation instructions in microcontroller. **07**
- (b) What is Interrupt? How does interrupt is served. Explain how context switching is done. **07**
- OR**
- (b) Explain interfacing of keyboard to microprocessor. **07**
- Q.3** (a) Is SRAM faster than DRAM? Where SRAM is used and where DRAM is used? Explain SRAM memory interface. **07**
- (b) Explain SCSI protocol for devices to communicate with each other. **07**
- OR**
- Q.3** (a) Give example applications of FLASH memory. Explain how FLASH memory stores information. **07**
- (b) Explain the architecture of ACPI. **07**
- Q.4** (a) What are the advantages of using SATA? Define three distinct protocol layers specified by SATA specifications. **07**
- (b) (i) Is CAM faster than RAM? What is the disadvantage of CAM? **07**
(ii) Write a short note on PCI.
- OR**
- Q.4** (a) What kind of Software support of A/D and D/A Converters is provided in microcontroller? **07**
- (b) What kind of Software support of A/D and D/A Converters is provided in microcontroller? **07**
- Q.5** (a) What Is Instruction-Level Parallelism? Explain data dependences and control dependences. **07**
- (b) Explain in detail storage area networks. **07**
- OR**
- Q.5** (a) (i) For what purpose 802.11x standards are developed? Explain different standards. **07**
(ii) What is the IEEE 1394 interface? For what purpose it is used?
- (b) Write uses of RDRAM. Compare the size and performance of RDRAM with other available RAMs. **07**
