Seat No.: _____   Enrolment No._____

GUJARAT TECHNOLOGICAL UNIVERSITY
M. E. - SEMESTER – II • EXAMINATION – WINTER • 2013

Subject code: 725204   **Date: 02-01-2014**
Subject Name: Protocols and Interfaces
Time: 10.30 am – 01.00 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 Computer Organization? Explain stored program model.	**07**
	(b)	i. Distinguish between Processor Architecture and System Architecture	**03**
		ii. Write a Short note on 1) Response time. 2) Through put.	**04**
Q.2	**(a)**	Explain with example Data Transfer and Branching processing in microcontroller.	**07**
	(b)	Write a note on memory hierarchy? What are the different types of memory available? Explain DRAM memory interface.	**07**

<div align="center">OR</div>

	(b)	i. Write a short note on IDE	**04**
		ii. What is the purpose of input/output enhancement mode.	**03**
Q.3	**(a)**	What is Interrupt? How does interrupt is served. Explain how context switching is done.	**07**
	(b)	What is timing function condition? Give the difference between signal conditioning and timing function condition	**07**

<div align="center">OR</div>

Q.3	**(a)**	Explain with example Logical and Bit (Boolean) processing in microcontroller.	**07**
	(b)	Explain SCSI protocol for devices to communicate with each other.	**07**
Q.4	**(a)**	i. Explain the architecture of USB.	**03**
		ii. Write a short note on PCI.	**04**
	(b)	What Is Instruction-Level Parallelism? Explain data dependences and control dependences.	**07**

<div align="center">OR</div>

Q.4	**(a)**	Explain the working of flash memory. Give suitable examples.	**07**
	(b)	i. Difference between CAM and RAM	**03**
		ii. Write a short note on SATA.	**04**
Q.5	**(a)**	Explain the architecture of ACPI.	**07**
	(b)	What are the aspects to be considered for the availability metrics for managing availability for storage network?	**07**

<div align="center">OR</div>

Q.5	**(a)**	Explain interfacing of keyboard to microprocessor.	**07**
	(b)	What kind of Software support of A/D and D/A Converters is provided in microcontroller?	**07**

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