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| Course Title | Microprocessor Systems and Interfacing | | | | | Course Code | EEE342 | | Credit Hours | 4 |
| Instructor | Engr. Usman Rafique | | | | Program | BSTE | | | | |
| Semester: | 6th | Batch | FA12 | Section | B | Date | | March 13,2015 | | |
| **Submission Date:** | **March 20, 2015 (During class time)** | | | | | **Marks:** | | **50** | | |
| **Assignment 1** | | | | | | | | | | |
| **Instructions:**   * Follow the guidelines for assignment submission as given in course hand book. * Add front title to the solution as described in the class room. * No solution shall be accepted after due date and time. | | | | | | | | | | |

Question 1 20 Marks

Interface 512KB SRAM with 8088 CPU. Design your memory system using four 32KB SRAM chips, two 64KB SRAM chips and one 256KB SRAM chip. Memory map for total SRAM starts from 00000H and above. You are required to provide:

1. Completely labelled schematic diagram of interfacing SRAM and CPU 12 Marks
2. Memory map for each SRAM chip 8 Marks

Question 2 10 Marks

Write an assembly language program that swaps the contents of two data memory segments named as SEG\_A and SEG\_B. Segment addresses for SEG\_A and SEG\_B has segment addresses BCDEH and 7887H, respectively.

Question 3 20 Marks

Interface 256 KB EEPROM with 8088 CPU. Your design must use 16KB EEPROM chips only. Only decoder that you may use in your design is 74LS138. Memory map for total ROM starts from 40000H and above. Provide:

1. Completely labelled schematic diagram of interfacing EEPROM with CPU 12 Marks
2. Memory map for each EEPROM 8 Marks