FACULTY OF INFORMATICS

B.E. 2/4 (IT) II - Semester (Main) Examination, June 2014

Subject: Computer Organization & Microprocessors

Time: 3 hours Max. Marks: 75

Note: Answer all questions from Part-A. Answer any FIVE questions from Part-B.

PART – A (25 Marks)

| 1 2 3 4 5 6 7 8 9 10 | Wh Wri Wri Def Wh time Wri Wh | the various types of computers and list any two features of each type of computer. Lat is the addressing capability of a processor with 12-bit address bus and 8-bit data bus? Lite an ALP to add two 8-bit numbers. Lite any three primary features of 8259A. Lite the differences between SRAM and DRAM. Lite the differences between SRAM and DRAM. Lite the average access time if the cache access time is 15 ns and memory access the is 1000ns with hit ratio as 80%. Lite the logical operations that can be performed in 8085. Lite the functions of 8253. | 3 3 3 3 2 2 2 2 |
|---|--|---|--------------------------------------|
| PART – B (50 Marks) | | | |
| 11 | a) b) | Write the importance of Direct Memory Access. Explain in detail about the interrupt service mechanism. | 5 5 |
| 12 | | Write the usage of virtual memories. Write short notes on secondary storage devices. | 5 5 |
| 13 | , | Write an ALP to perform the division operation of two numbers (8-bit). List any three addressing modes of 8085 microprocessor and explain. | 7 |
| 14 | , | List the features of successive approximation A/D converter. | 5 |
| and | b) Design a circuit to interface an 8-bit D/A converter with the 8085 microprocessor verify the analog output. | 5 | |
| 15 | a) b) | Explain the functions of handshake signals. What are the instructions that initiates the 8279 in a given mode? | 5 5 |
| 16 | a) b) | Explain the programming model of 8085 microprocessor. With a neat diagram explain the working of a SRAM cell. | 5 5 |
| 17 | a) | ite short notes on : Programmable Peripheral Interface (8255PPI). 8085 instruction set | 5 |
