Asian College of Management

Samakhusi, Kathmandu

Pre-Board Examination 2070

Subject: Computer Architecture F.M. 80

P.M. 16

Time: 3 Hr

Long Answer Question [2X12=24]

1. Design AC and AR Registers of Basic Mano Computer.
2. What is memory mapping? Discuss about Direct and Associative memory mapping of cache and memory mapping. Also write the merit and demerit of each technique.

Short Answer Question [6X6=36]

1. Draw the block diagram of DMA operation and explain. Also the timing diagram of its operation. [4 + 2]
2. What is addressing mode? Discuss about different type of addressing mode with example. [6]
3. What are the microinstructions needed for fetch routine? Write a symbolic micro program for the LDA instruction. [ 3 + 3]
4. Differentiate between RISC and CISC computers. [6]
5. Draw the memory hierarchy. Write the use of main and cache memory. [ 6]
6. Write the algorithm to add two signed binary number. [6]

Best of Luck