First Year MCA (Part - I) Examination

COMPUTER ORGANIZATION

Paper : 1 CS 1

Time : Three Hours]   [Max. Marks : 80

N. B. : (1) Due credit will be given to neatness and adequate dimensions.

           (2) Illustrate your answer wherever necessary with the help of neat sketches.

1.   (a) Discuss the conceptual development and technological development in third and fourth generation of computers.   8

     (b) What is Bus ? Differentiate between Synchronous and Asynchronous Bus.   6

OR

2.   (a) Discuss FIRST generation computers with the help of block diagram.   7

     (b) Draw the block diagram of processor and explain the function of the following components :—

         (i)   ALU

         (ii)   Control unit

         (iii)   Instruction register

         (iv)   Program Counter (PC)   7

8. (a) What is cache memory ? Explain any cache organization in detail. 6

   (b) Differentiate between RAM, SRAM and DRAM. 7

   OR

9. (a) Explain Read/Write mechanism of optical data storage. 7

   (b) Explain memory hierarchy with neat diagram in detail. 7

   OR

10. (a) What are the different types of memories ? Explain magnetic disk. 8

    (b) Describe working of hard disk. 6

    OR

11. (a) Explain Scanner. Discuss interfacing of scanner with PC. 6

    (b) Explain Modem with its characteristics. 7

    OR

12. (a) Explain Interfacing of PC with sound cards. 6

    (b) Describe the method of writing on CD in CDROM drives. 7

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3. (a) Explain 3 - address, 2 - address instruction formats with example. 7

   (b) Explain Instruction Sequencing. 6

   OR

4. (a) What are the different types of instruction ? Explain each with example. 7

   (b) Discuss internal register organisation with suitable diagram. 6

   OR

5. (a) Describe the keyboard interfacing. 6

   (b) Explain interrupt handling in detail. 7

   OR

6. (a) Discuss I/O addressing. What do you mean by I/O mapped I/O and memory mapped I/O ? 7

   (b) Draw parallel I/O interface and explain it. 6

   OR

7. (a) What do you mean by virtual memory ? Explain its address translation. 6

   (b) Explain all types of semiconductor material memories. 7

   OR