Digital Computer Fundamentals

2008 April

Science Information Technology

FYBSc-IT

Semester 1

University Exam

University of Mumbai

B.SC. IT- Sem I.   April - 2008   R₃ 4

Digital Computer Fundamental.   NK-1300

(3 Hours)   [Total Marks : 100]

Note:

1. All question carry equal marks.

2. Q.No 1 is compulsory.

3. Attempt any 4 from the remaining.

4. Draw neat diagrams wherever necessary.

Q1. a) Explain 8085 architecture in detail.   (10)

b) Explain 8085 bus organization.   (10)

Q2. a) Explain DMA.   (10)

b) What is instruction cycle?   (5)

c) Define stack pointer register?   (5)

Q3. a) Explain symmetric multiprocessor?   (10)

b) What is stack? Explain the instructions related to it?   (5)

c) What is subroutine? Explain instructions related to it?   (5)

Q4. Write short notes on:

a) RAID memory.   (10)

b) Flip flop and types of flip flops   (10)

Q5. Explain don't care condition & don't care's in a BCD system.   (20)

Q6. a) Discuss 4 to 1 multiplexer using truth table.   (10)

b) Explain toggle and latch.   (10)