Digital Computer Fundamentals

2007 June

Science Information Technology

FYBSc-IT

Semester 1

University Exam

University of Mumbai

.B. (1) Q. 1 is compulsory.
(2) Attempt any **four** from Q. 2 to Q. 7.
(3) Draw neat **diagrams** wherever **necessary**.

1. i) Explain 8085 architecture in detail.   12Mks

   ii) Explain 8085 bus organization.   8Mks

2. i) Draw and explain the functional view of a computer.   8Mks

   ii) Write a Short Note on RAID MEMORY?   12Mks

3. i) Write a Short Note on cache memory.   10Mks

   ii) Explain DMA.   8Mks

   iii) How many pins does 8085 IC have just state the names of any 5.   2Mks

4. 1) Explain push and POP instructions.   8Mks

   ii) What is instruction cycle ?   4Mks

   iii) Explain set associative mapping for cache memory.   6Mks

   iv) Define stack pointer Register.   2Mks

5. i) What is a subroutine? Explain instructions related to it.   10Mks

   ii) Explain I/O modules in detail.   10Mks

6. i) Explain symmetric multiprocessor.   10Mks

   ii) Explain functions of an operating system.   10Mks

7. i) What is stack? Explain the instructions related to it.   10Mks

   ii) What is mapping? Explain mapping techniques of cache memory.   10Mks