

B. N. Bandodkar College of Science, Thane
F.Y.B.Sc. Semester II Examination, March 2013
USCS201

Duration : 2 Hrs

Total Marks : 60

- N.B.: i. All questions are *compulsory*.
 ii. Figures in the right indicate maximum marks.

- Q. 1 Attempt *any three* from the following
- a What is mapping function? Explain any One mapping function in detail. 5
 - b Write short notes on RAID. 5
 - c What is RAM memory? Explain the different types of RAM. 5
 - d With the help of neat labeled diagram explain Programmed I/O. 5
 - e Explain in detail DMA (Direct Memory Access). 5
 - f Explain different types of ROM. 5
- Q. 2 Attempt *any three* from the following
- a What is Memory Management? Explain the term Segmentation in detail. 5
 - b Explain how to manage Memory by using Swapping technique. 5
 - c What are the characteristics of a multiprocessor? Explain Time-Shared Bus. 5
 - d With the help of neat labelled diagram explain Partitioning of Memory. 5
 - e What are the different states of Process? Explain Process Control Block also. 5
 - f What is scheduling? Explain FCFS scheduling in detail. 5
- Q. 3 Attempt *any three* from the following
- a Write a short note on: (i) Program Counter (ii) Stack Pointer. 5
 - b What is the role of following 8085 instructions with example 5
 (i) MOV (ii) MVI (iii) ADD (iv) SUB (v) INR
 - c With the help of neat labeled diagram, explain the programming model of 8085 5
 microprocessor.
 - d Explain the 8085 instruction format. 5
 - e Write an assembly language program to find Largest number from given array of 5
 data.
 - f Write a short note on Data transfer operation and Arithmetic operation of 8085 5
 Instruction set.
- Q. 4 Attempt *any three* from the following
- a Write 8085 assembly language program for the transfer of data from one block to 5
 another in same order.
 - b Write a short note on (i) Magnetic Disk (ii) Optical Memory. 5
 - c What are the major functions or requirements for an I/O module? Explain in detail. 5
 - d What is Cache Memory? Explain its importance. 5
 - e With the help of neat labeled diagram explain Interrupt Driven I/O. 5
 - f Write a short note on paging technique of Memory Management. 5