

B.C.A. DEGREE (C.B.C.S.S.) EXAMINATION, APRIL 2013**Fourth Semester****Core Course—MICROPROCESSORS AND PC HARDWARE**

Time : Three Hours

Maximum Weight : 25

Part A*Answer all questions.**Each bunch of four questions carries a weight of 1.*

- I. 1 ——— pin activates external data bus buffers.
2 Expand ISA.
3 The necessary steps carried out to perform the operation of accessing either memory or I/O device constitute ———.
4 ——— are the techniques used to specify data for instructions.
- II. 5 The operating modes of 8086 are decided by ———.
6 BIOS is placed in ———.
7 Give an example for 3 byte 8085 instruction.
8 ——— is a sealed unit that PC uses for non-volatile data storage.
- III. 9 One subdivision of an operation performed in one clock cycle is called ———.
10 The capacity and timing parameters of DIMM can be identified with ———.
11 ——— is a technique used in ATA/SCSI which writes variable number of sectors/track.
12 Give an example for based indexed addressing.
- IV. 13 SIMM contains one or several ——— chips.
(a) RAM (b) ROM. (c) EPROM. (d) PROM.
14 8086 can directly address upto ——— of memory.
(a) 512 KB. (b) 1 MB. (c) 2 MB. (d) 4 MB.
15 ——— segment holds addresses and data of subroutines.
(a) Code. (b) Data.
(c) Stack. (d) Extra.
16 ——— is used as Cache memory.
(a) ROM. (b) DRAM.
(c) SRAM. (d) None of these.

(4 × 1 = 4)

Turn over

Part B

*Answer any five questions.
Each question carries a weight of 1.*

- 17 What is an interrupt ?
- 18 Distinguish between Instruction cycle and Machine cycle.
- 19 What is exception ?
- 20 Distinguish between STI and CLI instructions.
- 21 What is the need of Lock pin in 8086 ?
- 22 What are the different types of cyclic redundancy checks ?
- 23 What is automatic head parking ?
- 24 What is NTFS ?

(5 × 1 = 5)

Part C

*Answer any four questions.
Each question carries a weight of 2.*

- 25 Discuss the addressing modes used in 8085.
- 26 What are the different types of registers used in 8085 ?
- 27 Distinguish between Extended memory and Expanded memory.
- 28 What are the components of a motherboard ?
- 29 Explain the memory write operation with the help of a timing diagram.
- 30 Explain disk formatting.

(4 × 2 = 8)

Part D

*Answer any two questions.
Each question carries a weight of 4.*

- 31 What are the different types of instructions used in 8085 ?
- 32 Describe the registers of 8086.
- 33 What is system bus ? What are the components of it ?

(2 × 4 = 8)