E 5452 (Pages : 2) Reg. No.....

Name.....

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 ?

$(5 \times 1 = 5)$

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.

$(4 \times 2 = 8)$

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 ?

$(2 \times 4 = 8)$

E 7333 (Pages : 3) Reg. No.....

Name.....

B.C.A. DEGREE (C.B.C.S.S.) EXAMINATION, MARCH 2014

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 In 8086, ———— pin is used to enable most significant data bus bits.

2 Expand USB.

3 A RIMM consists of ———— chips.

4 In ————, microprocessor is not available for reprogramming to the end user.

II. 5 The clock cycle for which the CPU waits is called ————.

6 ———— constitute several machine cycles.

7 In case of maximum mode operation, control signals are issued by ————.

8 ———— is a bus specifically designed for high performance graphics and video support.

III. 9 Give an example for 1 byte 8085 instruction.

10 ———— is used to make an 8086 instruction non-interruptable.

11 In a HDD, same tracks of different platters form a ————.

12 ———— 8085 instruction is used for I/O read.

IV. 13 ———— segment holds the destination addresses of some data of certain string instructions :

(a) Code. (b) Data.

(c) Stack. (d) Extra.

14 8085 is ———— microprocessor.

(a) CMOS. (b) NMOS.

(c) BIOS. (d) HMOS.

Turn over

15 ———— describes the reserved 384 KB at the top of the first megabyte of the system memory on a PC /XT.

(a) UMA. (b) HMA.

(c) XMS. (d) None.

16 8086 has ———— address lines.

(a) 16. (b) 20.

(c) 24. (d) 32.

(4 × 1 = 4)

Part B

Answer any **five** *questions.*
Weight 1 *each.*

17 What are the control signals used in 8086 ?

18 Define instruction cycle.

19 What are the different types of software interrupt instructions ?

20 What is interrupt vector ?

21 What is NTFS ?

22 What is the use of hold pins in 8086 ?

23 What is the technique of bit stuffing ?

24 What is CISC ?

(5 × 1 = 5)

Part C

Answer any **four** *questions.*
Weight 2 *each.*

25 Distinguish between ISA and MCA bus.

26 What are the addressing modes used in 8086 ?

27 What are the status flags used in 8085 ? What are the instructions associated with it ?

28 Illustrate the steps and draw the timing diagram of the instruction MOV C, A stored in location 2005_H is being fetched.

29 What are the components of a harddisk drive ?

30 Describe the difference in data transfer rates on PCI bus when compared to AGP.

(4 × 2 = 8)

Part D

Answer any **two** *questions.*
Weight 4 each.

31 Discuss the different types of memory.

32 Describe the different operations performed on a harddisk.

33 Draw the block diagram and explain the components of Intel 8085.

(2 × 4 = 8)

E 1502 (Pages : 2) Reg. No.....

Name.....

B.C.A. DEGREE (C.B.C.S.S.) EXAMINATION, MARCH 2015

Fourth Semester

Core Course—MICROPROCESSORS AND PC HARDWARE

(2013 Admissions)

Time : Three Hours Maximum : 80 Marks

Part A

Answer **all** *questions.*
Each question carries 1 *mark.*

1. What is an ALU ?
2. What are the general purpose registers in 8085 ?
3. Give the word length of 8086.
4. What is an accumulator register in 8086 ?
5. Expand AGP.
6. What is ROM ?
7. What is sector ?
8. What is secondary storage ?
9. What is a bus ?
10. What is base memory ?

(10 × 1 = 10)

Part B

Answer any **eight** *questions.*
Each question carries 2 *marks.*

11. What is an instruction cycle ?
12. Discuss the need of timing diagrams.
13. Mention the function of READY and NMI pins of 8086.
14. What is the need of a stack ?
15. What is the use of program counter in 8085 ?
16. Mention the use of processor buses.

Turn over

17. What is ROMBIOS ?
18. What are log files ?
19. What is NTFS ?
20. What is high memory area ?
21. Distinguish carry flag and zero flag.
22. What is USB ?

(8 × 2 = 16)

Part C

Answer any **six** *questions.*
Each question carries 4 *marks.*

23. Explain the use of status flags.
24. Explain the working of RRC and RAR instructions in 8085.
25. Describe the special purpose registers in 8085.
26. How microprocessor handles interrupts ?
27. Describe the different operating modes of 8086.
28. What are I/O buses? Discuss any two of them.
29. Explain the procedure of disk formatting.
30. Write a note on extended memory.
31. What are the features of hard disk ?

(6 × 4 = 24)

Part D

Answer any **two** *questions.*
Each question carries 15 *marks.*

32. What is an addressing mode ? Explain the addressing modes of 8085.
33. Describe the operations in 8086 microprocessor.
34. Explain the structure of a motherboard.
35. Describe the structure of the read write head of a hard disk.

(2 × 15 = 30)

E 2278

(Pages : 2) Reg. No.....

Name.....

B.C.A. DEGREE (C.B.C.S.S.) EXAMINATION, APRIL 2016

Fourth Semester

Core Course—MICROPROCESSOR AND PC HARDWARE

(2013 Admission onwards)

Time : Three Hours Maximum Marks : 80

Part A

Answer **all** *questions.*
Each question carries 1 *mark.*

1. What is the function of program counter ?
2. What is assembly language ?
3. Why registers are used in microprocessors ?
4. What is the function of timing and control unit ?
5. What is the function of carry bit ?
6. What is the need of addressing mode ?
7. What is USB ?
8. What is NTFS ?
9. What is meant by Memory access time ?
10. Define ROM.

(10 × 1 = 10)

Part B

Answer any **eight** *questions.*
Each question carries 2 *marks.*

11. What are the general purpose registers in 8085 ?
12. What is the need of ALE signal in 8085 ?
13. Define machine cycle and instruction cycle.
14. What is an assembler directive? Give examples.
15. Differentiate the operating modes of 8086 processor.
16. Define track, sector and cylinder.
17. List and explain any two functions performed by BIOS.
18. Explain the concept of extended memory.

Turn over

19. What is physical address ?
20. Explain disk formatting.
21. What are the advantages of using memory segmentation in 8086 ?
22. Write a note on ROM BIOS.

(8 × 2 = 16)

Part C

Answer any **six** *questions.*
Each question carries 4 *marks.*

23. Compare 8085 and 8086.
24. Define interrupts. What is meant by software interrupts ?
25. What do you mean by status flag ? List different flags in 8085.
26. What is the need for timing diagram ? Give an example.
27. Explain the features of Hard disk.
28. Explain the concept of virtual memory.
29. Discuss the features of SIMMs and DIMMs.
30. Write a note on FAT 32.
31. What are the primary functions of the motherboard and list out their various form factors ?

(6 × 4 = 24)

Part D

Answer any **two** *questions.*
Each question carries 15 *marks.*

32. Explain the instruction set of 8085 in detail.
33. With the help of a neat diagram explain the architecture of 8086.
34. Discuss the various components of a motherboard with the help of a diagram.
35. Explain the Hard disk operations and Hard disk drive installation procedure in detail.

(2 × 15 = 30)

QP CODE: 18103309

18103309

Reg No : .....

Name : .....

BCA DEGREE (CBCS) EXAMINATION, NOVEMBER 2018

Third Semester

Bachelor of Computer Application

CORE COURSE - CA3CRT01 - MICROPROCESSOR AND PC HARDWARE

2017 Admission Onwards

A89AD45C

Maximum Marks: 80 **Time: 3 Hours**

Part A

Answer any **ten** questions.

Each question carries **2** marks.

1. What are the features of 8085 microprocessor?
2. What is the function of timing and control unit?
3. Discuss the steps involved in fetch a byte in 8085.
4. Explain instruction format of 8085?
5. Define processor socket .
6. Write about super I/O chip .
7. Differentiate procesor bus and memory bus .
8. How we can select a motherboard ?
9. Define HDD .
10. What is meant by a cylinder in HDD ?
11. What are the advantages of VFAT over FAT .
12. Differentiate UMA and HMA .

(10×2=20)

Part B

Answer any **six** questions.

Each question carries **5** marks.

13. What is meant by an interrupt ? Explain with examples
14. Briefly explain the instruction set of Intel 8085
15. Explain any five arithmetic group instructions of Intel 8085 .
16. Define motherboard and write the importance of motherboard in the system .

17. Differentiate between ISA and EISA expansion buses .

18. What is CMOS ? Write the features of CMOS .

19. Define the term 'disk formatting ' and explain the importance of disk formatting.

20. Describe FAT32 .

21. What is meant by logical memory and physical memory ?

(6×5=30)

Part C

Answer any **two** questions.

Each question carries **15** marks.

22. Explain the pin diagram of Intel 8085 .

23. Explain in detail , the instruction set of 8085 microprocessor .

24. Write note on (a) HD features (b) HD installation procedure

25. Explain the following memory modules . SIMM , DIMM , RIMM .

(2×15=30)

QP CODE: 19102009

19102009

Reg No : .....

Name : .....

BCA DEGREE (CBCS) EXAMINATION, OCTOBER 2019

Third Semester

Bachelor of Computer Application

CORE COURSE - CA3CRT01 - MICROPROCESSOR AND PC HARDWARE

2017 Admission Onwards

5F1D1670

Maximum Marks: 80 Time: 3 Hours

Part A

*Answer any **ten** questions.*

*Each question carries **2** marks.*

1. What are the features of 8085 microprocessor?
2. Write short note on general purpose registers in 8085.
3. Briefly explain machine cycle.
4. Explain the function of I/O instruction IN and OUT.
5. Define motherboard .
6. Expand CMOS and write the importance of CMOS .
7. Write about super I/O chip .
8. Define memory bus .
9. Define HDD .
10. What is FAT ?
11. What is NTFS ?
12. Write short note on expanded memory .

(10×2=20)

Part B

*Answer any **six** questions.*

*Each question carries **5** marks.*

13. Explain hardware and software interrupts
14. What is meant by data transfer group of the Intel 8085 instruction set? Explain with suitable instructions.

15. What are the different types of Intel 8085 instructions ?

16. What is meant by local bus? Write the advantages of using local buses .

17. Define co-processor and explain about math co-processor .

18. What are the factors consider while we are selecting a motherboard ?

19. Explain disk platters .

20. Explain HD installation procedure

21. What is meant by upper memory area and high memory area ?

(6×5=30)

Part C

*Answer any **two** questions.*

*Each question carries **15** marks.*

22. With the help of pin diagram explain the operations of 8085 microprocessor .

23. Discuss about each group of instruction set of Intel 8085 microprocessor with examples.

24. Explain the disk formatting method in HDD .

25. Compare and contrast SIMM , DIMM and RIMM .

(2×15=30)

21100449

QP CODE: 21100449

Reg No : .....

Name : .....

BCA DEGREE (CBCS)EXAMINATION, MARCH 2021

Third Semester

Bachelor of Computer Application

Core Course - CA3CRT01 - MICROPROCESSOR AND PC HARDWARE

2017 Admission Onwards

96796705

Time: 3 Hours Max. Marks : 80

Part A

*Answer any **ten** questions.*

*Each question carries **2** marks.*

1. Define microprocessor.
2. Differentiate between maskable and nonmaskable interrupts.
3. What are interrupts of Intel 8085?
4. Explain instruction format of 8085?
5. What is the need of motherboard in your system?
6. What is meant by co-processor?
7. Write about super I/O chip .
8. How can we select a motherboard?
9. Write briefly about high level formatting .
10. What is FAT ?
11. What is NTFS ?
12. Write the advantages of RIMM over other types of memory modules .

(10×2=20)

Part B

*Answer any **six** questions.*

*Each question carries **5** marks.*

13. How the instruction and data flow carried out in 8085 microprocessor ? Explain.

14. What is meant by data transfer group of the Intel 8085 instruction set? Explain with suitable instructions.

15. Explain different move instructions with examples .

16. Write about USB .

17. What is POST and Bootstrap loader ? Explain .

18. Differentiate between memory bus and processor bus .

19. Explain different read/write heads.

20. Describe the HD features.

21. Write note on extended memory .

(6×5=30)

Part C

*Answer any **two** questions.*

*Each question carries **15** marks.*

22. Draw the block diagram and explain the components of Intel 8085 .

23. Discuss about each group of instruction set of Intel 8085 microprocessor with examples.

24. Explain the hard disk operations .

25. Discuss about each one (a) Convensional memory (b) UMA (c) HMA

(2×15=30)

MICROPROCESSOR AND PC HARDWARE

PART A

1. Define microprocessor.
2. Differentiate between maskable and nonmaskable interrupts.
3. What are interrupts of Intel 8085?
4. Explain instruction format of 8085?
5. What is the need of motherboard in your system?
6. What is meant by co-processor?
7. Write about super I/O chip .
8. How can we select a motherboard?
9. Write briefly about high level formatting .
10. What is FAT ?
11. What is NTFS ?
12. Write the advantages of RIMM over other types of memory modules
13. What are the features of 8085 microprocessor?
14. Write short note on general purpose registers in 8085.
15. Briefly explain machine cycle.
16. Explain the function of I/O instruction IN and OUT.
17. Define motherboard .
18. Expand CMOS and write the importance of CMOS .
19. Define memory bus .
20. Define HDD .
21. Write short note on expanded memory
22. What is the function of timing and control unit?
23. Discuss the steps involved in fetch a byte in 8085.
24. Define processor socket .
25. Differentiate procesor bus and memory bus .
26. How can we select a motherboard ?
27. What is meant by a cylinder in HDD ?
28. What are the advantages of VFAT over FAT .
29. Differentiate UMA and HMA .
30. What is the function of program counter ?
31. Why registers are used in microprocessors ?.
32. What is the funcion of timing and cotrol unit ?
33. What is the need of addressing mode ?
34. What·is USB ?
35. What is NTFS ?
36. What is meant by Memory access time ?.
37. Define ROM,
38. What is the need of ALE signal in 8085 ?
39. Define instruction cycle.
40. Define track, sector-and cylinder.
41. List and explain any two functions·performed by BIOS.
42. Explain the concept of extended memory.

PART B

1. What is meant by an interrupt ? Explain with examples
2. Briefly explain the instruction set of Intel 8085
3. Explain any five arithmetic group instructions of Intel 8085 .
4. Define motherboard and write the importance of motherboard in the system .
5. Differentiate between ISA and EISA expansion buses .
6. What ÏS CMOS ? Write the features of CMOS .
7. Define the term 'disk formatting ' and explain the importance of disk formatting.
8. Describe FAT32 .
9. What is meant by logical memory and physical memory?
10. Explain the pin diagram of Intel 8085 .
11. How the instruction and data flow carried out in 8085 microprocessor ? Explain.
12. What is meant by data transfer group of the Intel 8085 instruction set? Explain with suitable instructions.
13. Explain different move instructions with examples .
14. Write about USB .
15. What is POST and Bootstrap loader ? Explain .
16. Differentiate between memory bus and processor bus .
17. Explain different read/write heads.
18. Describe the HD features.
19. Write note on extended memory .
20. Explain hardware and software interrupts.
21. What is meant by data transfer group of the Intel 8085 instruction set? Explain with suitable instructions.
22. What are the different types of Intel 8085 instructions ?
23. What is meant by local bus? Write the advantages of using local buses .
24. Define co-processor and explain about math co-processor .
25. Explain disk platters .
26. Explain HD installation procedure
27. What is meant by upper memory area and high memory area ?
28. Explain the concept of virtual memory.
29. Discuss the features of SIMMs and DIMMs.
30. What are the primary functions of the motherboard and list out their various form factos?

PART C

1. Draw the block diagram and explain the components of Intel 8085 .
2. With the help of pin diagram explain the operations of 8085 microprocessor .
3. Discuss about each group of instruction set of Intel 8085 microprocessor with examples.
4. Explain the disk formating method in HDD .
5. Compare and contrast SIMM , DIMM and RIMM .
6. Explain the hard disk operations .
7. Discuss about each one (a) Convensional memory (b) UMA (c) HMA
8. Write note on (a) HD features (b) HD installation procedure
9. Discuss the various components of a ·motherboard with.the help of a diagram.
10. Explain the structure of read-write head of a hard disk.