

B.C.A. Part – I Semester–II (CBCS) Examination**2 BCA 1****COMPUTER SYSTEM AND INTERFACES**

Time : Three Hours]

[Maximum Marks : 80

- Note :**— (1) Question Number 1 is compulsory.
 (2) All other questions carry equal marks.
 (3) Assume sustainable data wherever necessary.

1. (A) Choose correct alternative and rewrite the sentence : 10
- (1) The number of address line in 8085 is :

(a) 8	(b) 16
(c) 32	(d) 20
 - (2) The instruction set of 8085 is classified in :

(a) 3 group	(b) 4 group
(c) 5 group	(d) 8 group
 - (3) In 8085 Instruction set the addressing modes are :

(a) 5	(b) 4
(c) 16	(d) 8
 - (4) To add the content of register with carry _____ instruction is used.

(a) ADD r	(b) ADC r
(c) ADI r	(d) ADI data
 - (5) The 8086 microprocessor is _____ bit architecture.

(a) 8	(b) 16
(c) 20	(d) 32
 - (6) In 8086 microprocessor there are _____ segment registers.

(a) 4	(b) 8
(c) 12	(d) 16
 - (7) Which of the following are known as higher order address bus ?

(a) READY	(b) AD_7-AD_0
(c) $A_{15}-A_8$	(d) WR

(8) Which pin is used to Blank the Display during Digit Switching ?

- (a) BD
- (b) IR
- (c) WR
- (d) DB

(9) Digital camera is :

- (a) Input device
- (b) Output device
- (c) Software
- (d) Storage

(10) What is the other name for tactile sensors ?

- (a) Touch sensors
- (b) Temperature sensors
- (c) Humidity sensors
- (d) Exponential sensors

(B) Fill in the blanks :

5

- (1) The 8085 microprocessor is _____ pin IC.
- (2) In 8085 microprocessor, the multiplication is carried out using _____ instruction.
- (3) The address bus of 8086 is _____ bit.
- (4) In 8085 instruction CMA is _____ addressing mode.
- (5) DMA stands for _____.

(C) Answer in **one** sentence :

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- (1) What is meant by instruction ?
- (2) Define Addressing modes.
- (3) What is the function of Instruction pointer IP in 8086 ?
- (4) Define Interface.
- (5) What is meant by tactile ?

2. (A) Draw the pin diagram of 8085 microprocessor and explain the function of following pin : 4

- (1) $\text{IO}/\overline{\text{M}}$
- (2) $\overline{\text{RD}}$
- (3) $\overline{\text{WR}}$
- (4) ALE

(B) Explain the classification of instructions of 8085 microprocessors with suitable example. 8

OR

3. (A) Draw the Block diagram of 8085 microprocessor and explain the function of each block. 8

- (B) Explain the task performed by the following instruction : 4
- (1) MVI A, 08H (2) ADC B
- (3) ANI C (4) POP rP
4. (A) Explain the Addressing modes of 8085 with suitable examples. 8
- (B) Write an Assembly language programme of 2's complement using 8085 instruction. 4
- OR**
5. (A) Explain the Addressing modes of following instructions : 4
- (1) LDA 2000 H (2) LXI H, 2500 H
- (3) CMA (4) ADD M
- (B) Write an assembly language program of 8085 for multiplication of two 8 bit No. 8
6. (A) Draw the internal Architecture of 8086 microprocessor and explain the functioning of each block. 8
- (B) Explain the function of following pins of 8086 microprocessor : 4
- (1) $\overline{M}N / \overline{M}X$ (2) $\overline{M}/\overline{IO}$
- (3) $\overline{DT}/\overline{R}$ (4) ALE
- OR**
7. (A) Explain the classification of instruction set of 8086 microprocessor with suitable example. 8
- (B) Explain the flag register of 8086 microprocessor. 4
8. (A) What is interface ? Explain graphical user interface. 8
- (B) Explain VGA interface (RS232). 4
- OR**
9. (A) What is Interface ? Explain types of Interface. 8
- (B) Explain Keyboard Interface circuit. 4
10. (A) Explain Digital Camera interface in detail. 8
- (B) Explain Tactile interface in detail. 4
- OR**
11. (A) What is Optical Reader Interface ? Why is OCR important ? 4
- (B) Explain the Blue Tooth Device interface with diagram. 8