DAY - 18 SEAT NUMBER | | | | | | |

2017	III	22	1100	V – 268	(E)

COMPUTER SCIENCE

PAPER - II (D-9)

Time : 3 Hours	4 Pages	Max. Marks : 50

Instructions : *(1) All questions are compulsory.*
(2) Figures to the right indicate full marks.
(3) Draw neat diagrams wherever necessary.
(4) Use of any type of calculator is not allowed.
(5) Comments are must in Assembly Language Programs.

1. (A) Select correct options and rewrite the following :

(a) The flag register of 8085 microprocessor contains_____flags. **1**

(i) 8

(ii) 3

(iii) 7

(iv) 5

(b) ANA, r instruction comes under _____ group. **1**

(i) Arithmetic

(ii) Logical

(iii) Branch

(iv) Data Transfer

(c) The maximum physical memory can be addressed by 80286 microprocessor is _____ **1**

(i) 640 KB

(ii) 1 MB

(iii) 16 MB

(iv) 4 KB

(d) _____ cable uses light signals to transmit data. **1**

(i) Fiber Optic

(ii) Coaxial

(iii) UTP

(iv) STP

(B) Solve **any two** of the following :

(a) Explain functions of the following pins of 8085 Microprocessor : **3**

(i) Multiplexed address/data bus pin (AD0 - AD7)

(ii) RST 6.5

(iii) CLK (OUT)

(b) Write the addressing mode and length in bytes of the following instructions : **3**

(i) CPI 10 H

(ii) MOV M, B

(iii) SHLD C009 H

(c) Compare any three characteristics of Twisted Pair Cable with Coaxial Cable. **3**

2. (A) Solve **any two** of the following :

(a) Define the following terms with suitable diagrams : **3**

(i) T State

(ii) Machine Cycle

(iii) Instruction Cycle

(b) What is Wireless Media ? Write any two advantages of Wireless Media. **3**

(c) The accumulator in 8085 microprocessor contains data 71H and register E contains data 39H. What will be the contents of an accumulator in Hexadecimal after execution of the following instructions independently ? **3**

(i) ADD E

(ii) ORA E

(iii) RRC

(B) Solve **any one** of the following :

(a) What is Microcontroller ? State any three advanced features of 8052 microcontroller over 8051 microcontroller. **4**

(b) What is Vectored Interrupt ? State all hardware interrupts with their vectored addresses, write the priorities of hardware interrupts. **4**

3. (A) Solve **any two** of the following :

(a) Write any three difference points between Memory Mapped I/O and I/O Mapped I/O Addressing Scheme. **3**

(b) Explain the following instructions of 8085 Microprocessor with one example of each : **3**

(i) PUSH PSW

(ii) INX rp

(iii) DAD rp

(c) Write a short note on Modem. **3**

(B) Solve **any one** of the following :

(a) Write any two features of following Microcontrollers : **4**

(i) 8048

(ii) 8052

(iii) 8031

(iv) 8050

(b) What is Ehternet ? Discuss different types of Ethernet. **4**

4. (A) Solve **any two** of the following :

(a) Compare any three attributes of 80386 and 80486 Microprocessor. **3**

(b) Write any three instructions to make Accumulator Zero. **3**

(c) What is Microprocessor ? List its functions. **3**

(B) Solve **any one** of the following :

(a) Write a function of following functional units of 8085 Microprocessor : **4**

(i) Instruction Decoder

(ii) General Purpose Register

(iii) Data / Address Buffer

(iv) Status Register

(b) What is Transmission Media ? Explain in short six characteristics of Transmission Media. **4**

5. Solve **any two** of the following :

(a) Write a Assembly Language Program to copy a block of data having starting address 4500 H to new location starting from 4600 H. The length of block is stored at memory location 44FF H. **5**

(b) Write an Assembly Language Program to add two 8-bits BCD numbers stored at memory location 4500 H and 4501 H. Store the two byte BCD result from memory location 4502 H onwards. **5**

(c) Write an Assembly Language Program to fill the memory locations 4500H to 4504 with the Hexadecimal numbers 09 H to ODH respectively. **5**

OR

5. Solve **any two** of the following :

(a) Write an Assembly Language Program to exchange the nibbles of 8-bit number stored in memory location 4500H. Store the result at memory location 4501H. **5**

(b) A block of data is stored in memory location 4500 H. The length of block is stored in memory location 44FFH. Write an Assembly Language Program that searches for the first occurrence of data D9H in given block. Store the address of this occurrence in H.L. pair. If the number is not found then HL pair should contain 5000 H. **5**

(C) A block of data is stored from memory location 4501H and onwards. The length of the block is stored at memory location 4500H. Write an Assembly Language Program to find the sum of block of data. Store the two byte result from memory location 4600 H. **5**