

MODEL QUESTION PAPER SET- 1 : 2021 - 22

MM : 50

COMPUTER SCIENCE Paper – II (THEORY)

Time : 3 Hrs

Entire Syllabus

Q.1.(A) Select the correct alternative and rewrite :**(4)**

- i. _____ is a Not a Microprocessor. 1
 (a) 8086 (b) 8080 (c) Pentium (d) 8048
- ii. _____ instruction does not affect flag. 1
 (a) MOV (b) XRA (c) CMP (d) RRC
- iii. If cable length too long then ____ is used to raise the signal level to original level. 1
 (a) Router (b) Hub (c) Repeater (d) Modem
- iv. _____ instruction works like a 9 bit instruction. 1
 (a) DAA (b) INX (c) RAL (d) SIM

(B) Answer any tow of the following :**(6)**

- i. Differentiate between Microcontroller and Microprocessor. 3
- ii. Explain following : 3
 1. Stack pointer 2. Accumulator 3. ALU
- iii. Write short notes on Co-axial cable. 3

Q.2. (A) Answer any two :**(6)**

- i. Explain functions of following pins: 3
 1. READY 2. IO/M 3. SOD
- ii. Explain in brief 80286 and 80486 processor in brief 3
- iii. Write feature of a microcontroller 8051. 3

(B) Answer any one.**(4)**

- i. Draw labeled internal block diagram of 8085. 4
- ii. Explain in brief programming model of 32-bit microprocessors 4

Q.3.(A) Answer any two:**(6)**

- i. Explain any three addressing modes of 8085 3
- ii. Explain in short. 3
 1. star topology 2. Bus topology 3. Ring topology
- iii. Distinguish between LAN and WAN 3

(B) Answer any one :**(4)**

- i. Explain Vectored interrupts, their priorities and their branching addresses. 4
- ii. Explain features of Pentium processors in terms of : 4
 1. Dual pipelining 2. Prefetching 3. Branch prediction 4. Internal Cache

- Q.4.(A) Answer any two :** (6)
- What is protocol ? Explain in brief TCP/IP protocol. 3
 - Explain structure of Fiber optic cable. 3
 - Explain in brief Flag register of 8086. 3
- (B) Answer any one:** (4)
- Explain following instructions: 4
1. XCHG 2. XTHL 3. CPI 4. RNZ
 - Short note on Characteristics of Communication media. 4
- Q.5.(A) Answer any two :** (10)
- Write an Assembly language program to multiply two numbers stored at 1051H and 1052H. Store the result in 1053H and 1054 H. 5
 - Write an Assembly language program to count how many numbers in a data block are multiples of 2. The data block consists of 50 bytes, stored from 20A0H. Store the count at 3000H. 5
 - Write an Assembly language program to transfer data block stored from location 1021H to 1035H to new location starting from 2000H onwards. 5

OR

- Q.5.(A) Answer any two :**
- Write an Assembly language program to add two 16-bit numbers stored at location 2001H and 2003H. Store the sum starting from address 2005H onwards.
 - Accumulator contains value C5H and Register B consists of value 73H. What will be contents of Accumulator and value of Sign and Carry flag bits, when following instructions work independently.
i. CMP B ii. ADI 32H iii. CMA iv. XRA B v. ADD B
 - Write an Assembly language program to count how any locations in a memory block have value 2AH. The memory block starts at location 2001H. The length of the block is stored in location 2000H. Store the count at 3001H
