



WEST BENGAL STATE UNIVERSITY
B.Sc. Honours 5th Semester Examination, 2022-23

CMSADSE01T-COMPUTER SCIENCE (DSE1/2)

Time Allotted: 2 Hours

Full Marks: 40

*The figures in the margin indicate full marks.
Candidates are required to give their answers in their own words as far as practicable.
All symbols are of usual significance.*

Answer Question No. 1 and any four from the rest

1. Answer any *four* questions from the following: 2×4 = 8
- (a) What is the difference between Microprocessor and Microcontroller?
 - (b) What is the working principle of the Status Register of 8085 Microprocessor?
 - (c) What is TRAP?
 - (d) What do you mean by PSW?
 - (e) What do you mean by Vector interrupt?
 - (f) Why XCHG instructions are used?
2. (a) Draw the timing diagram of IN instruction. 4+4
(b) Write the difference between memory mapped I/O and I/O mapped I/O.
3. (a) Write a program in assembly language to perform Decimal Addition of two 8 bit numbers whose sum is 8 bits or more. 4+4
(b) Discuss the functions of following instruction of 8085.
RAL, LHLD, PUSH, CPM
4. (a) Draw and discuss of Interfacing a 256×8 static R/W memory with 8085 Microprocessor using 3×8 Decoder. 3+5
(b) Let fifth line (O₄) of 3×8 Decoder is attached with enable input of 256×8 static R/W memory to interface with the microprocessor. Find the Mirror memory range for this interfacing diagram.
5. (a) Write an Assembly language program to check whether a given binary string is palindrome or not. 5+3
(b) Write a program to Enable RST 6.5 and Disable RST 7.5 and RST 5.5 interrupt.

6. (a) Discuss PUSH and POP instruction with the help of suitable example. 5+3
(b) Discuss CALL and RET instruction for subroutine Call and Return with the help of suitable example and diagram.
7. (a) What are addressing modes? 3+5
(b) Explain different modes of addressing used in 8085 microprocessor.
8. Write short notes on any two of the following: 4×2 = 8
(a) Memory Interfacing
(b) Multiplexer
(c) Draw and discuss the timing diagram for MVI B, 09H.

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