WEST BENGAL STATE UNIVERSITY

B.Sc. Honours 5th Semester Examination, 2021-22

CMSADSE01T-COMPUTER SCIENCE (DSE1/2)

MICROPROCESSOR

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 do you mean by instruction register?

   (b) Give the bit configuration of 8085 flag register.

   (c) What do you mean by delay subroutine?

   (d) What is working principle of LHLD instruction?

   (e) Why XCHG instructions are used?

   (f) Differentiate: Instruction cycle and Machine cycle.

2. (a) Draw the timing diagram of OUT instruction.   4+4 = 8

   (b) Write a program to enable RST 6.5 and disable RST 7.5 and 5.5.

3. (a) Write a program in assembly Language to Perform Addition of Two 16 bit   4+4 = 8
       numbers whose sum is 16 bits or more.

   (b) Discuss the functions of following instructions of 8085:

           RAR, DAD, CALL D050H, DCX B

4. (a) Draw and discuss the Timing diagram of interfacing 2732 EPROM with 8085   5+2+1 = 8
       microprocessor.

   (b) What is multiplexing in 8085 Microprocessor?

   (c) What do you mean by Absolute Decoding?

5. (a) Explain the working procedure of DCR and DAD with examples.   4+4 = 8

   (b) The content of accumulator is 8AH, and that of register B is A7H. Write a 8085
       program to add the contents of the registers and comment on the result.

6. (a) Differentiate: memory mapped I/O and I/O mapped I/O. 4+4 = 8

   (b) How address bus and data bus are separated in 8085 microprocessor?

7. Write short notes on any *two*: 4×2 = 8

   (a) NOP instruction and its utility

   (b) Cache memory organisation

   (c) EPROM vs. PROM.

N.B. : *Students have to complete submission of their Answer Scripts through E-mail / Whatsapp to their own respective colleges on the same day / date of examination within* 1 *hour after end of exam. University / College authorities will not be held responsible for wrong submission (at in proper address). Students are strongly advised not to submit multiple copies of the same answer script.*

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