R13

Code No: 811AB

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD
MCA I Semester Examinations, April/May - 2019
COMPUTER ORGANIZATION

Time: 3 Hours **Max. Marks: 60**

Note: This question paper contains two parts A and B.
Part A is compulsory which carries 20 marks. Answer all questions in Part A. Part B consists of 5 Units. Answer any one full question from each unit. Each question carries 8 marks and may have a, b, c as sub questions.

PART - A

5 × 4 Marks = 20

1.a)	What is the purpose of Half adder?	[4]
b)	Draw the block diagram of typical RAM chip.	[4]
c)	What are the flags in 8086?	[4]
d)	Compare isolated versus memory mapped I/O.	[4]
e)	What are the advantages of parallel processing?	[4]

PART - B

5 × 8 Marks = 40

2. Simplify the following booleam function using four-variable maps.
a) F(A, B, C, D)=∑(3,7,11,13,14,15)
b) F(A, B, C, D)= ∑(0,2,4,5,6,7,8,10,13,15) [4+4]

OR

3.a) Explain the floating point representation.
b) Explain operation of 3 to 8 decoder. [4+4]

4. Explain the operation of set-associating mapping. [8]

OR

5. Explain about content addressable memory. [8]

6. Explain 8086 CPU architecture. [8]

OR

7.a) Write an 8086 assembly level languages program to find biggest among 3-integers.
b) Give some 8086 shift instructions. [4+4]

8. Explain DMA-mode of data transfer. [8]

OR

9.a) Explain about Daisy chaining with neat sketch.
b) What are the various peripheral devices? [4+4]

10. Explain the RISC pipeline. [8]

OR

11. Explain the SIMD array processor. [8]

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