Registration No. : | | | | | | | | | | |

Total number of printed pages – 2

B. Tech

BCSE 3307 (Old)

Sixth Semester (Back) Examination – 2013

COMPUTER ARCHITECTURE AND ORGANIZATION – II

BRANCH : CSE

QUESTION CODE : B338

Full Marks – 70

Time : 3 Hours

*Answer Question No. **1** which is compulsory and any **five** from the rest.*
The figures in the right-hand margin indicate marks.

1. Answer the following questions : 2×10

   (a) What is absolute addressing mode ?

   (b) What is the role of MAR and MDR ?

   (c) What is the role of IR and PC ?

   (d) Define word length.

   (e) State and explain the performance equation.

   (f) What is locality of reference ?

   (g) Define memory access time.

   (h) Distinguish Between Static RAM and Dynamic RAM.

   (i) What is a page fault ?

   (j) Differentiate between byte-addressable and word addressable computer.

2. (a) Write about subroutine and its use with LINK registers ? 5

   (b) Explain in brief about multiprocessor and multicomputer. 5

P.T.O.

3. (a) Write about single bus organization of the datapath. 5

(b) Describe briefly basic INPUT/OUTPUT operations. 5

4. (a) Describe virtual memory with address translation ? 5

(b) Define LOAD and STORE instructions with examples. 5

5. (a) Discuss about Intel 8085 Addressing modes. 5

(b) Write a assembly level program to add two 8 BIT numbers. 5

6. (a) Write about booths algorithm with a example. 5

(b) Write about three bus organization of the datapath. 5

7. (a) Draw circuit for binary division. 5

(b) Explain how parallelism can be achieved in memory interleaving. 5

8. Write short notes on any **two** of the following : 5×2

(a) Hardwired Control

(b) Virtual memories

(c) Microprogrammed Control

(d) Magnetic Tape Systems.