Seat No.	

[5252]-572

S.E. (Information Technology) (First Semester)

EXAMINATION, 2017

COMPUTER ORGANIZATION AND ARCHITECTURE

(2015 COURSE)

Time : Two Hours   **Maximum Marks : 50**

N.B. :— (*i*) *All* questions are compulsory.

(*ii*) Figures of the right indicate full marks.

1. (A) Multiply 101011 by 110011 using Booth's algorithm.   [6]

    (B) Explain any *two* addressing modes with suitable diagrams and example.   [6]

Or

2. (A) Which are the different instruction cycle states of a processor ? Explain.   [6]

    (B) Perform the division using non-restoring method 22/3.   [6]

3. (A) Explain Single Bus Processor Organization with diagram. [7]

    (B) Explain any *one* type of cache mapping technique with diagram.   [6]

P.T.O.

4. (A) What are the functions of control unit ? Explain control unit with block diagram. [7]

(B) How virtual memory is managed using paging and TLB ? [6]

5. (A) Which are the different stages in 5 stage pipeline ? [6]

(B) Explain events of Fetch cycle of MIPS pipeline. [6]

Or

6. (A) What are the Hazards in pipeline architecture ? Explain its types. [6]

(B) Which are the basic performance issues in pipelining ? [6]

7. (A) Write short note on cluster configuration. [6]

(B) Write a note on Multicore Architectures. [7]

Or

8. (A) Explain closely coupled and loosely coupled microprocessor systems. [7]

(B) What is Flynn's Taxonomy for Multiprocessor Organizations ? Explain with diagram. [6]