

B.Tech II Year II Semester (R07) Supplementary Examinations May/June 2016

COMPUTER ORGANIZATION

(Common to CSE, IT, CSS & ECC)

(For 2008 regular admitted batch only)

Time: 3 hours

Max. Marks: 80

Answer any FIVE questions

All questions carry equal marks

- 1 (a) What are the basic functional units of the computer?
(b) What are encoders and decoders?
(c) What is meant by memory stack organization?
- 2 (a) Discuss the purpose of various register used in basic computers and also the data flow between these registers.
(b) Write about register gating and timing of data transfers.
(c) Explain multiple bus organization.
- 3 (a) Explain the design issues and functions of micro programmed control unit with suitable diagram.
(b) Describe integer division.
(c) Explain address sequencing with example.
- 4 (a) Explain the execution of a complete instruction.
(b) Explain the arithmetic operations when the numbers are represented in floating point representation.
(c) Explain: (i) Fast multiplication. (ii) Booth algorithm.
- 5 (a) Explain the types of semiconductor RAM memories in detail.
(b) Explain the various types of secondary storage devices.
(c) Describe about virtual memory address translation.
- 6 (a) What is stack processor?
(b) Explain the characteristics and advantages of Intel 80 X 86 family.
(c) Explain the software interrupt and hardware interrupt.
- 7 (a) Explain RISC pipeline vector processing in detail.
(b) What is called static and dynamic branch prediction?
(c) What are superscalar processors in detail?
- 8 (a) What is cache coherence? Mention the solutions to cache coherence problems.
(b) Explain interconnection structures in multi processors.
