

Code: 9A05406

B.Tech III Year I Semester (R09) Supplementary Examinations June/July 2014

COMPUTER ORGANIZATION
(Electronics & Communication Engineering)

Time: 3 hours

Max. Marks: 70

Answer any FIVE questions
All questions carry equal marks

- 1 (a) Explain about NAN and denormalized numbers in IEEE standard.
(b) What is bias? What is the need of bias for floating point numbers in IEEE 754 standard?
- 2 (a) Explain about arithmetical, logical and shift micro operations.
(b) Show that the statement $A \leftarrow A + A$ symbolizes a shift left micro operation.
- 3 (a) What is micro program sequencer? Explain the micro program sequencer organization with functional table.
(b) What are the different methods used to reduce number of bits in micro instruction?
- 4 (a) Explain the hardware implementation of unsigned binary multiplication.
(b) Perform multiplication of unsigned numbers 1101 and 1011.
- 5 Explain the performance considerations of various memories with necessary parameters.
- 6 What is an I/O interface? Describe methods to implement the same with two examples.
- 7 Explain the following with neat sketches:
 - (a) Parallel processing.
 - (b) Arithmetic pipeline.
- 8 (a) Compare communication costs in multicomputer and multiprocessor systems.
(b) Explain about Amdahl's law.
