R09

B.Tech III Year II Semester (R09) Supplementary Examinations December/January 2015/2016
COMPUTER ORGANIZATION
(Common to EIE and E.Con.E)

Time: 3 hours

Max Marks: 70

Answer any FIVE questions
All questions carry equal marks
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1 (a) Explain with the help of flowchart showing the sequence of execution of a high level language program.
  (b) Define the following:
      (i) Execution time.
      (ii) Response time.

2 (a) Explain the operation of arithmetic logic shift unit.
  (b) Discuss in brief about data transfer and manipulation instructions.

3 (a) What is nano programming? Explain nano-instruction sequencing organization.
  (b) Compare microprogramming and nano programming.

4 (a) Derive an algorithm and flow chart for the non restoring method of fixed point binary division.
  (b) List four alternative methods of rounding the result of a floating point operation.

5 (a) Describe the basic concepts of Semiconductor RAM memories.
  (b) Give short notes on Cache memories.

6 (a) Explain in brief the different modes of transfer.
  (b) Explain the CPU-IOP communication in detail.

7 (a) What is parallel processing? What is meant by Instruction stream and data stream?
  (b) How the Synchronization problems can be solved by using a semaphore?

8 (a) Explain the crossbar switch organization.
  (b) Describe SISD Multiprocessing with aid of diagram.

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