

Code No: 54056

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JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD

B.Tech II Year II Semester Examinations, May - 2016

COMPUTER ORGANIZATION  
(Computer Science and Engineering)

Time: 3 hours

Max. Marks: 75

Answer any five questions  
All questions carry equal marks

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- 1.a) Explain different functional units of a computer.
- b) Explain fixed point and floating point representation of a data. [7+8]
2. What are register transfer logic languages? Explain few RTL statements for branching with their actual functioning. [15]
- 3.a) Discuss in detail Address sequencing.
- b) Differentiate between microprogramming and nanoprogramming. [8+7]
- 4.a) Explain Booth's algorithm for multiplication.
- b) Multiply 11011 with 11011 using Booths algorithm. [8+7]
5. Explain different Cache memory mapping techniques in detail. [15]
- 6.a) What is DMA? What is its need? Explain.
- b) What is an Input-Output processor? Explain. [8+7]
7. Explain the following:
  - a) Parallel Processing
  - b) Array Processors. [8+7]
- 8.a) Explain characteristics of multiprocessors.
- b) Discuss the difference between tightly coupled multiprocessors and loosely coupled multiprocessors from the view point of hardware organization and programming techniques. [5+10]

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