

Code No: 55021

R09

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY, HYDERABAD

B. Tech III Year I Semester Examinations, November - 2015

COMPUTER ORGANIZATION

(Common to ECE, ETM)

Time: 3 hours

Max. Marks: 75

Answer any five questions

All questions carry equal marks

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- 1.a) What are the different performance measures used to represent a computer systems performance?  
b) What is meant by normalization in floating point representation? Explain. [8+7]
- 2.a) With the help of an example, explain how register transfer is implemented. Tabulate various symbols used for register transfers.  
b) With the help of block diagrams, explain the 4-bit binary subtractor. [8+7]
- 3.a) What is a pipeline register? What is the use of it? Explain in detail.  
b) Discuss about functioning of micro-programmed control unit. [8+7]
- 4.a) Multiply 10111 with 10011 using Booth's algorithm.  
b) What is meant by divide overflow? Explain. [8+7]
5. Write short notes on:  
a) Static memory systems.  
b) Dynamic memory systems. [8+7]
- 6.a) Explain IOP mode of data transfer.  
b) What is daisy-chaining? Explain with neat diagram. [8+7]
- 7.a) What is pipelining? Explain pipeline processing with an example.  
b) Explain the following with related to the instruction pipeline:  
i) Pipeline conflicts ii) Data dependency iii) Hardware interlocks [8+7]
8. What are the different kinds of multistage switching networks? Explain with neat sketch. [15]

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