

**R09****Code: 9A05406**

B.Tech II Year II Semester (R09) Supplementary Examinations December/January 2015/2016

**COMPUTER ORGANIZATION**

(Common to CSE &amp; ECC)

Time: 3 hours

Max. Marks: 70

Answer any FIVE questions

All questions carry equal marks

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- 1 (a) Distinguish between fixed-point and floating-point representations of given number.  
(b) What are the various ways of representing negative numbers? Explain with an example.
- 2 (a) Explain different instruction formats.  
(b) List some data transfer instructions and explain with example.
- 3 (a) Write about the control memory in detail.  
(b) Compare and contrast hardwired control and micro-programmed control. Is it possible to have a hardwired control associated with a control memory?
- 4 (a) Draw the flowchart to explain addition and subtraction of signed fixed point numbers.  
(b) Multiply 101111 with 110110 using Booth's algorithm.
- 5 (a) Discuss the most commonly used system organizations for cache memory  
(b) How cache read operation is executed?
- 6 (a) Discuss in detail any one type of I/O operation and specify its merits and demerits.  
(b) Compare programmed I/O and interrupt driven I/O.
- 7 (a) Explain the attached array processor with conventional computer.  
(b) What is structural hazard?
- 8 (a) Explain in detail the multiport memory system with a neat sketch.  
(b) Write the advantages of loosely coupled systems.

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