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BICS-013

B.Tech. – VIEP – COMPUTER SCIENCE AND ENGINEERING (BTCSVI)

Term-End Examination

00053

December, 2016

BICS-013 : COMPUTER ORGANISATIONS

Time : 3 hours *Maximum Marks : 70*

Note : *Attempt any **seven** questions. All questions carry equal marks.*

1. (a) Explain the concept of floating-point number representation. *5*

(b) How do you represent integer numbers ? *5*

2. (a) Explain the concept of error detection and correction codes. *5*

(b) Describe the generations of a computer. *5*

3. (a) How do you perform addition operation of signed numbers ? *5*

(b) Explain the concept of a control word. *5*

4. (a) Explain addition and subtraction with signed 2's complement. *5*

(b) Explain hardware implementation for signed-magnitude data. *5*

5. (a) What are the types of control units ? Explain. 5

(b) Explain microinstruction format with example. 5

6. (a) Differentiate between Horizontal and Vertical micro-programming. 5

(b) What is a fetch routine ? 5

7. (a) Explain memory organizations and ROM memories. 5

(b) What is the difference between virtual memory address space and memory space ? 5

8. (a) What is optical memory ? 5

(b) Explain associative mapping and direct mapping. 5

9. (a) What are peripheral devices and interrupts ? 5

(b) Explain DMA. 5

10. Write short notes on the following : 2×5=10

(a) Cache Memory

(b) Addressing Mode