K17U 2006

Reg. No. :

Name :

III Semester B.C.A. Degree (CBCSS – Reg./Sup./Imp.) Examination, November 2017 (2014 Admn. Onwards) Core Course 3B06BCA : COMPUTER ORGANIZATION

Time : 3 Hours

Max. Marks: 40

SECTION - A

1. One word answer :

 $(8 \times \frac{1}{2} = 4)$

- a) Common clock in the synchronous bus case is replaced by two timing control lines _______and _____.
- b) Any condition that causes a pipeline to stall is called a ______
- c) ______ is measured by the rate at which instruction execution is completed.
- d) The compiler can reorder the instructions to perform some useful work during the _____
- e) Inter-Instruction Level and Intra-Instruction Level are the level of _____
- f) In ______ only one instruction stream is being acted on by the CPU during any one clock cycle.
- g) Each element in a vector is a _____
- h) The clock period should be long enough to let the _____

SECTION-B

Write short notes on any seven of the following questions :

 $(7 \times 2 = 14)$

2. What is the significance of addressing mode ? Explain any one addressing mode.

3. What is Processor Status Register ?

4. Explain straight-line sequencing of instruction execution.

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- 5. Explain Three-state bus buffers.
- 6. Explain different instruction code formats.
- 7. What is privileged instructions ?
- 8. What is control word?
- 9. What is I/O mapped I/O ?
- 10. Write short notes on Hit Rate and Miss Penalty.
- 11. What is an TLB?

SECTION - C

Answer any four of the following questions :

- 12. Explain I/O interface with the help of diagram.
- 13. What are Microinstructions ?
- 14. Explain vectored interrupt.
- 15. What is Fast Page Mode RAM?
- 16. Distinguish between EPROM and EEPROM.
- 17. Explain 2's complement addition with an example.

SECTION - D

Write an essay on any two of the following questions :

 $(2 \times 5 = 10)$

- 18. With the help of a diagram explain Associative Memory mapping.
- 19. Explain Hardwired Control Unit.
- 20. Explain supercomputers in detail.
- 21. Give an account of bus arbitration.

$(4 \times 3 = 12)$

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