

Code No: 07A5EC07

Set No. 1

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD

III B.Tech I-Sem I Mid-Term Examinations, September – 2009

COMPUTER ORGANIZATION

Objective Exam

Name: _____ Hall Ticket No.

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Answer All Questions. All Questions Carry Equal Marks. Time: 20 Min. Marks: 20.

I Choose the correct alternative:

1. To design a common bus system for 8 registers of 16-bits each, how many Multiplexers are required? ()
a) 8 MUXs b) 12 MUXs c) 16 MUXs d) 4 MUXs
2. In a typical instruction format, the type of operation to be performed is specified by ()
a) Mode field b) opcode field c) Address field d) None
3. If the address field of an instruction specifies the effective address, then the instruction is ()
a) Immediate Instruction b) Direct Instruction
c) Indirect Instruction d) None of the above
4. The number of different logic operations that can be performed with ' n ' – binary variables is ()
a) 2^n b) 2^{n+1} c) 2^{n-1} d) 2^{2^n}
5. When two normalized mantissas are added, the sum may contain ()
a) Under flow b) Over flow
c) Neither a overflow nor a underflow d) None of the above
6. Which of the following is also called the next address generator for a control Memory? ()
a) Multiplier b) Micro program sequencer
c) Control address register d) Program counter
7. The advantage of biased exponent is that the exponent is represented as ()
a) Positive number b) Negative number c) Unsigned number d) None of the above
8. In a n -bit binary adder/ subtractor circuit a control input 'X' used to perform either addition or subtraction operation. If control input $X=1$, then the operation performed is ()
a) Addition b) Addition with carry
c) 1's complement subtraction d) 2's complement subtraction
9. If the memory size is 4096×16 , then how many address lines are required to address any memory location. ()
a) 20 b) 16 c) 12 d) 8

Cont...2

10. Control unit which has inbuilt memory (ROM), in which programmes are permanently stored and ROM is responsible for outputting the control signals. ()
a) Hard – wired control unit b) Micro programmed control unit
c) Both d) None

II. Fill in the blanks:

11. The concurrent execution of several application programs to make the best possible use of computer resources by the operating system known as
12. After the arithmetic shift left operation of a register, if there is a sign reversal, thenoccurs.
13. The type of shift used to shift the contents of a register which contains a signed binary number is called
14. In a memory stack, after the pop operation, the stack pointer will be
15. Let the given 8 – bit binary number is 10110010 is stored in Reg. 'R'. After arithmetic shift right operation is performed, the contents of the register 'R' are -----

III. Match the following:

- | | | |
|---------------------------|---------|----------------------------------|
| 16. Immediate Mode | [] | a) Branch type Instruction |
| 17. Relative Mode | [] | b) Micro program sequencer |
| 18. Accumulator | [] | c) Memory reference instructions |
| 19. Next address register | [] | d) Constants |
| 20. BSA | [] | e) Holds an open |

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Set No. 2

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III B.Tech I-Sem I Mid-Term Examinations, September – 2009

COMPUTER ORGANIZATION

Objective Exam

Name: _____ Hall Ticket No.

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Answer All Questions. All Questions Carry Equal Marks. Time: 20 Min. Marks: 20.

I Choose the correct alternative:

1. The number of different logic operations that can be performed with 'n' – binary variables is ()
a) 2^n b) 2^{n+1} c) 2^{n-1} d) 2^{2^n}
2. When two normalized mantissas are added, the sum may contain ()
a) Under flow b) Over flow
c) Neither a overflow nor a underflow d) None of the above
3. Which of the following is also called the next address generator for a control Memory? ()
a) Multiplier b) Micro program sequencer
c) Control address register d) Program counter
4. The advantage of biased exponent is that the exponent is represented as ()
a) Positive number b) Negative number c) Unsigned number d) None of the above
5. In a n-bit binary adder/ subtractor circuit a control input 'X' used to perform either addition or subtraction operation. If control input X=1, then the operation performed is ()
a) Addition b) Addition with carry
c) 1's complement subtraction d) 2's complement subtraction
6. If the memory size is 4096x16, then how many address lines are required to address any memory location. ()
a) 20 b) 16 c) 12 d) 8
7. Control unit which has inbuilt memory (ROM), in which programmes are permanently stored and ROM is responsible for outputting the control signals. ()
a) Hard – wired control unit b) Micro programmed control unit
c) Both d) None
8. To design a common bus system for 8 registers of 16-bits each, how many Multiplexers are required? ()
a) 8 MUXs b) 12 MUXs c) 16 MUXs d) 4 MUXs
9. In a typical instruction format, the type of operation to be performed is specified by ()
a) Mode field b) opcode field c) Address field d) None

Cont...2

10. If the address field of an instruction specifies the effective address, then the instruction is ()

- a) Immediate Instruction
- b) Direct Instruction
- c) Indirect Instruction
- d) None of the above

II. Fill in the blanks:

- 11. In a memory stack, after the pop operation, the stack pointer will be
- 12. Let the given 8 – bit binary number is 10110010 is stored in Reg. 'R'. After arithmetic shift right operation is performed, the contents of the register 'R' are
- 13. The concurrent execution of several application programs to make the best possible use of computer resources by the operating system known as
- 14. After the arithmetic shift left operation of a register, if there is a sign reversal, thenoccurs.
- 15. The type of shift used to shift the contents of a register which contains a signed binary number is called

III. Match the following:

- | | | |
|---------------------------|-----|----------------------------------|
| 16. Immediate Mode | [] | a) Branch type Instruction |
| 17. Relative Mode | [] | b) Micro program sequencer |
| 18. Accumulator | [] | c) Memory reference instructions |
| 19. Next address register | [] | d) Constants |
| 20. BSA | [] | e) Holds an opend |

Set No. 3

III B.Tech I-Sem I Mid-Term Examinations, September – 2009

Objective Exam

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I. Choose the correct alternative:

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Set No. 4

III B.Tech I-Sem I Mid-Term Examinations, September – 2009

Objective Exam

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I Choose the correct alternative:

- ## Cont...2

10. The advantage of biased exponent is that the exponent is represented as ()
a) Positive number b) Negative number c) Unsigned number d) None of the above

II. Fill in the blanks:

11. After the arithmetic shift left operation of a register, if there is a sign reversal, thenoccurs.
12. The type of shift used to shift the contents of a register which contains a signed binary number is called
13. In a memory stack, after the pop operation, the stack pointer will be
14. Let the given 8 – bit binary number is 10110010 is stored in Reg. 'R'. After arithmetic shift right operation is performed, the contents of the register 'R' are -----
15. The concurrent execution of several application programs to make the best possible use of computer resources by the operating system known as

III. Match the following:

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|---------------------------|---------|----------------------------------|
| 16. Immediate Mode | [] | a) Branch type Instruction |
| 17. Relative Mode | [] | b) Micro program sequencer |
| 18. Accumulator | [] | c) Memory reference instructions |
| 19. Next address register | [] | d) Constants |
| 20. BSA | [] | e) Holds an open |