**«SN»  «Proper  Name»        «ID» («Major»)**

## Question: [15 Points] [CLO 1] Propositional Logic

Indicate whether the given sentence is true or false. In the answer column write either ✓ for "true" or ✗ for "false".

| Statement | Answer |
|---|:---:|
| 1.  The decimal value of the bit string resulting from 0101101001 ∧ 0010011011 is 12. | ✗ |
| 2.  "8 + 7 = 3" is not a proposition. | ✗ |
| 3.  "Answer all the questions" is a proposition. | ✗ |
| 4.  The negation operator (¬) has lower precedence than the disjunction operator (∨) does. | ✗ |
| 5.  The proposition "If Tuesday is a month of the year, then I am a penguin." is FALSE. | ✗ |
| 6.  p ↔ q means (p → q) ∨ (q → p). | ✗ |
| 7.   p → q is False only when p is TRUE and q is FALSE. | ✓ |
| 8.  The value of p ∨ ¬p is FALSE. | ✗ |
| 9.  The contrapositive of p → q is ¬p → ¬q. | ✗ |
| 10. The contrapositive of p → q is ¬q → ¬p. | ✓ |
| 11. The proposition "If you can solve all textbook's exercises then you will achieve A+" is equivalent to "You solve all textbook's exercises is necessary to achieve A+". | ✗ |
| 12. The proposition "(7≠7) → cats can fly" is FALSE. | ✗ |

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