

Bago University
Department of Philosophy
First Semester Examination, March 2019

Third Year
(Philosophy Specialization)

Phil 3102
Advanced Logic -I
Time Allowed: (3) Hours

Answer FIVE questions.

1. Choose correct words, fill in the blanks and rewrite the followings.

- (a) Any argument is made up of three ----- . (premises, conclusions, propositions)
- (b) The symbol “~” called a curl is used to symbolize ----- . (conjunction, negation, disjunction)
- (c) There are eight rules or resolution used by ----- in the process of resolving the schemata.
(Polish, Matrix, Quine)
- (d) If the premises imply the conclusion then the ----- is valid. (proposition, argument, statement)
- (e) ----- used the symbol “⊥” for falsehood in place of F. (Quine, Matrix, Polish)
- (f) Validity is concerned with the ----- . (material truth , formal truth , argument)
- (g) A statement is contradictory when the statement is ----- under all circumstance.
(true, false, unknown)
- (h) There are two kinds of ----- . (arguments, premises, conclusions)

2. If A and B are true statements and M and N are false statements, determine the truth and falsity of the following compound statement.

- (a) $\sim [M \supset (\sim M \vee N)] \vee [(\sim M \vee N) \supset M]$
- (b) $[(A \cdot M) \supset B] \supset [\sim A \vee (\sim B \vee M)]$
- (c) $[M \vee (A \cdot N)] \vee \sim [(M \vee A) \cdot (M \vee N)]$

3. Use the truth tables to determine the validity of each of the following argument as tautology or contradictory or contingent.

- (a) $[(p \supset q) \cdot \bar{q}] \supset p$
- (b) $[(r \cdot s) \vee (r \cdot q)] \supset (r \vee s)$
- (c) $[(p \cdot q) \cdot \bar{q}] \supset p$

4. Determine the validity of each of the following argument as tautology or contradictory or contingent by Quine's Method.

- (a) $[(p \cdot q) \vee (\sim p \cdot q)] \supset (p \vee q)$
- (b) $(p \cdot q) \supset (p \vee q)$
- (c) $[(p \cdot q) \supset r] \equiv [p \supset (q \supset r)]$

P.T.O

