B.A.LL.B (5Years) (with Credits)-Regular-Semester 2012 Sem II

LL-08 Course Code 2.2 : Philosophy-II Paper-II

P. Pages : 3 **GUG/W/16/5440**

Time : Three Hours * 2 9 3 2 * Max. Marks : 80

Notes : 1. Attempt **eight** questions in all including question no. **1** which in compulsory.
2. All questions carry equal marks.
3. Indicate appropriate question number while answering.

1. Choose the correct alternative for the given statement.

i) What do you mean by tautology?
a) Truth b) Falsity
c) Negative d) None of these

ii) What is the symbol of conjunction?
a) · b) ν
c) ⊃ d) None of these

iii) 'Or' and 'not' are referred as what?
a) Operators b) Ordinary term
c) Both 'a' and 'b' d) None of these

iv) Negation is applied to how many statement?
a) One b) Two
c) Three d) Four

v) What are the examples of the rules of replacement?
a) Modus Tollens b) Conjunction
c) Exportation d) None of these

vi) There are how many rules of inference?
a) Eight b) Ten
c) Seven d) Six

vii) Proving validity deals with --------- in logic.
a) Validity b) Invalidity
c) Argument d) None of these

viii) A universal quantification is referred as what?
a) Logical proposition b) Logical connective
c) Logical constant d) None of these

ix) "If and only if" is used for what?
a) Conjunction b) Implication
c) Equivalence d) None of these

x) If A and B are true statements and X and Y are false statements, the compound statement $\sim(A \vee X)$ is -----
a) True b) False
c) Doubtful d) None of these

2. Use truth tables to determine the validity or invalidity of the following arguments **any two.**

i) $N \supset (N \supset O)$
$N \supset N$
$\therefore N \supset O$

ii) $J \supset (K \cdot L)$
$J \vee (K \cdot L)$
$\therefore K \cdot L$

iii) $K \supset (L \supset M)$
$K \supset L$
$\therefore K \supset M$

3. Construct a formal proof of validity **any two.**

i) $M \supset N$
$M \supset (N \supset O)$
$\therefore M \supset O$

ii) $O \supset (P \supset Q)$
$P \supset (Q \supset R)$
$\therefore O \supset (P \supset R)$

iii) $(P \supset Q) \cdot (P \vee R)$
$(R \supset S) \cdot (R \vee P)$
$\therefore Q \vee S$

4. Prove the invalidity of the following by the method of shorter truth table **any two.**

i) $A \supset B$
$C \supset D$
$A \vee D$
$\therefore B \vee C$

ii) $I \vee \sim J$
$\sim (\sim K \cdot L)$
$\sim (\sim I \cdot \sim L)$
$\therefore \sim J \supset K$

iii) $A \equiv (B \vee C)$
$B \equiv (C \vee A)$
$C \equiv (A \vee B)$
$\sim A$
$\therefore B \vee C$

5. Construct a formal proof of validity **any two.**

i) $(x)\ (Ax \supset \sim Bx)$
$(\exists x)\ (Cx \cdot Ax)$
$\therefore (\exists x)\ (Cx \cdot \sim Bx)$

ii) $(x)\ (Dx \supset \sim Ex)$
$(x)\ (Fx \supset Ex)$
$\therefore (x)\ (Fx \supset \sim Dx)$

iii) $(\exists x)\ (Yx \cdot Zx)$
$(x)\ (Zx \supset Ax)$
$\therefore (\exists x)\ (Ax \cdot Yx)$

6. Prove the invalidity of the following **any two.**

i) $(\exists x)\ (Yx \cdot Zx)$
$(\exists x)\ (Ax \cdot Zx)$
$\therefore (\exists x)\ (Ax \cdot \sim Yx)$

ii) $(x)\ (Px \supset \sim Qx)$
$(x)\ (Px \supset \sim Rx)$
$\therefore (x)\ (Rx \supset \sim Qx)$

iii) $(\exists x)\ (Vx \cdot \sim Wx)$
$(\exists x)\ (Wx \cdot \sim Xx)$
$\therefore (\exists x)\ (Xx \cdot \sim Vx)$

7. Shorter truth table is more convenient than truth table method.

8. Explain the difference between the method of instantiation and quantification.

9. Discuss the four rules of quantificational deduction.

10. Distinguish between truth functional and non-truth functional statement. Explain the different types of truth functional compound statement.

11. Write short notes on:
i) The three laws of thought.
ii) Inconsistency.

12. What is definition? Explain the different types of definition?

****