LOYOLA COLLEGE (AUTONOMOUS) CHENNAI – 600 034

M.A. DEGREE EXAMINATION – **PHILOSOPHY**

FIRST SEMESTER – **NOVEMBER 2024**

PPL1MC04 – LOGIC AND RESEARCH METHODOLOGY

Date: 13-11-2024 Dept. No. Max. : 100 Marks

Time: 09:00 am-12:00 pm

SECTION A – K1 (CO1)

	Answer ALL the questions	**(5 x 1 = 5)**
1	**Match the following**	
a)	The quality-quantity of the proposition "Some SN Scholastics are foreigners" is	The principle of noncontradiction
b)	The subject-term in the proposition "No humans are angels" is	then 'p ∧ q' is false.
c)	No statement can be both true and false at the same time, in the same place and in same respect.	Distributed
d)	In an exclusive disjunction, if 'p' is true and 'q' is true,	C ≡ R
e)	"You will catch (C) the bus if and only if you reach in time (R)."	Affirmative-Particular.

SECTION A – K2 (CO1)

	Answer ALL the questions	**(5 x 1 = 5)**
2	**Answer the following**	
a)	A sound argument must be valid. ☐ True ☐ False	
b)	"All Satya Nilayam meals are delicious" is *contrary* to: ☐ Some Satya Nilayam meals are delicious. ☐ Some Satya Nilayam meals are no delicious. ☐ No Satya Nilayam meals are delicious.	
c)	Chennai gets flooded (F) if and only if there is a cyclone (C): ☐ F ∨ C ☐ F ≡ C ☐ F ⊃ C ☐ F • C	
d)	"Scholastics are intelligent" is 'P'	_____ is '~P'
e)	If the antecedent of the hypothetical proposition is affirmed in the second premise; and the consequent is affirmed in the conclusion, then it is called: ☐ Modus Operandi. ☐ Modus Ponens. ☐ Modus Tollens. ☐ Modus Vivendi.	

SECTION B – K3 (CO2)

	Answer any THREE of the following in 100 words each.	**(3 x 10 = 30)**
3	Drawing the table of Categorical Propositions, give two examples each for affirmative, negative, universal and particular propositions.	
4	Illustrate the 'generalizing' of a 'skeletal pattern or schema' to 'deductively valid arguments' with three examples.	

5	Write a note on the 'Quantitative' and 'Qualitative' rules of validity in categorical syllogisms.
6	Identifying the compound proposition in the truth function table given below, write the corresponding examples for each of the rows in this 'truth table'.

p	q	$p \wedge q$
T	T	F
T	F	T
F	T	T
F	F	F

7	Distinguishing between simple enumeration and scientific induction, give two examples of 'scientific explanation'.
	SECTION C – K4 (CO3)
	Answer any TWO of the following in 200 words each. **(2 x 12.5 = 25)**
8	Forming two syllogisms of your own, illustrate the 'terms' and 'propositions' in each syllogism.
9	Explain any two each 'informal fallacies' of 'ambiguity', 'relevance' and 'Defective Induction' with examples.
10	Drawing the table of relationships between four types of categorical propositions, define the laws governing the 'contrary', 'subcontrary' and 'subalternate' oppositions.
11	Differentiate between 'induction by simple enumeration' and 'induction by complete enumeration' with two examples from each.
	SECTION D – K5 (CO4)
	Answer any ONE of the following in 500 words **(1 x 15 = 15)**
12	Explain the seven 'formal fallacies' in categorical syllogisms with an example for each of them.
13	With the symbols, 'p' and 'q', draw the truth tables for 'Implicative' and 'Equivalent' truth functions [7 marks]. Write the four possible sets of truth values these two truth functions can have [8 marks].
	SECTION E – K6 (CO5)
	Answer any ONE of the following in 1000 words **(1 x 20 = 20)**
14	Elaborating on any five problems of philosophy [10 marks], discuss how these problems are relevant today [5 marks] and how logic can help you to address them [5 marks].
15	With examples from your life, enumerate the rules for the validity of 'disjunctive' [5 marks], 'mixed hypothetical' [5 marks] and 'pure hypothetical' [5 marks] non-categorical compound syllogisms. With an example each, demonstrate the 'invalid' case of 'mix hypothetical' and 'pure hypothetical' syllogisms.

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