

3/PHI-200 Syllabus-2023

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(December)

FYUP : 3rd Semester Examination

MAJOR

PHILOSOPHY

(Logic)

PHI-200

Marks : 75

Time : 3 hours

*The figures in the margin indicate full marks
for the questions*

Answer any **five** questions

1. What is logic? Is logic a science or an art, or both? Discuss. 5+10=15
2. Examine briefly the five kinds of definitions. 15
3. What are the fundamental laws of thought in logic? Examine in detail the different laws of thought. 5+10=15

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(Turn Over)

(2)

4. What are formal fallacies? Explain three of the formal fallacies briefly. 5+10=15
5. State and explain different rules of categorical syllogism. 15
6. What is a proposition? Distinguish it from sentence and judgement. 5+10=15
7. Explain the functioning of the logical constants and variables. Describe logical connectives with examples. 10+5=15
8. Discuss the relation between truth and validity. Can there be valid argument with false premise? 10+5=15
9. Symbolize any *five* of the following : 3×5=15
 - (a) A State will develop only if there is peace.
 - (b) Moon and stars both will rise in the sky only if it is not day.
 - (c) Either Mary or Lily will win the race but they will not both win the race.
 - (d) It will rain only if the sky is cloudy and the weather is not windy.
 - (e) If all men are mortal and Socrates is a man, then Socrates is mortal.

- (f) If you work hard, then you will gain and live happy.
- (g) If John joins the tournament, then either he will win or lose.
- (h) You will definitely achieve success if and only if you work hard.

10. Construct the truth tables for any *three* of the following statement forms, and determine those as tautologous, contradictory or contingent : 5×3=15

(a) $(p \supset q) \cdot r$

(b) $p \supset q$
 $\sim q$
 $\therefore \sim p$

(c) $p \supset q$
 $\sim p$
 $\therefore \sim q$

(d) $\sim p \supset \sim q$
 $\sim q$
 $\therefore p$

(e) $p \vee q$
 p
 $\therefore q$
