

**2/EH-20 (ii) (Syllabus-2015)**

**2018**

**( April )**

**PHILOSOPHY**

**( Elective/Honours )**

**( Logic )**

**( PHIL : 11 )**

**Marks : 75**

**Time : 3 hours**

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

**Answer any five questions**

- 1. Define Logic. Discuss that logic is a formal and normative science. 5+10=15**
- 2. What is proposition? Distinguish it from sentence and judgement. 5+10=15**
- 3. Discuss the relation between truth and validity. Can there be valid argument with false premise? 10+5=15**

4. What do you mean by fallacies? Discuss different types of informal fallacies.  $3+12=15$
5. What is a standard form of categorical syllogism? State and explain its rules.  $5+10=15$
6. Explain the denotative, connotative and ostensive definitions. 15
7. Briefly examine the concept of square of opposition with reference to the relations that exist between the standard form of categorical proposition. 15
8. Write short notes on any two of the following :  $7\frac{1}{2}\times 2=15$
- (a) Laws of thought
  - (b) Logical connectives
  - (c) Constants and variables

9. Symbolize any five of the following :  $3\times 5=15$
- (a) Alan will not play, unless John plays the game.
  - (b) It is not the case that there is  $P$  and there is no  $Q$ .
  - (c) I will study hard and pass the examination or I will fail the examination.
  - (d) Either Sheila or Leela will participate in the Quiz but they will not both win the Quiz.
  - (e) If government is re-elected, then it is false that public confidence will be restored and trade will improve. It is false that either public confidence won't be restored or trade won't improve. Therefore, government will be re-elected.
  - (f) Tom and Sam both work late only if it is not a holiday.
  - (g) It is not the case that neither Mira nor Sita will win the election.

10. Test the validity of the following arguments with truth tables (any *three*) :  $5 \times 3 = 15$

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

$\therefore q \vee r$

(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)  $p \vee q$

$p$

$\therefore \sim q$

**2/EH-20 (ii) (Syllabus-2015)**

**2 0 1 7**

( April )

**PHILOSOPHY**  
( Elective/Honours )

( **Logic** )

( PHIL : 21 )

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. What do you understand by denotation and connotation of terms? How do they vary inversely? Discuss. 5+10=15
3. Explain and examine the rules for definition by genus and difference. 15

( 2 )

4. What is a proposition? Explain the distinction among sentence, judgement and proposition.  $5+10=15$
5. What is categorical syllogism? Explain briefly the rules of categorical syllogism.  $5+10=15$
6. What are the fundamental laws of thought in logic? Why are they called fundamental? Discuss.  $10+5=10$
7. Explain briefly each of the following *five* types of fallacies with examples :  $3 \times 5 = 15$
- (a) Argumentum ad ignoration
  - (b) Argumentum ad hominem
  - (c) Petitio principii
  - (d) Fallacy of accent
  - (e) Argumentum ad populum
8. Write short notes on any *two* of the following :  $7 \frac{1}{2} \times 2 = 15$
- (a) Classification of propositions
  - (b) Logical constants and variables
  - (c) Kinds of definition
  - (d) Truth and validity

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( Continued )

( 3 )

9. Symbolize any *five* of the following :  $3 \times 5 = 15$
- (a) A State will develop only if there is peace.
  - (b) It is not the case that neither John nor David wins their conference championship.
  - (c) If George and David both do not win their elections, then Mary and Sita both do not win their elections.
  - (d) If all men are mortal and Socrates is a man, then Socrates is mortal.
  - (e) If Alice is elected Class President, then if Betty is elected Vice-President, then Carol is elected Treasurer.
  - (f) If you work hard, then you will gain and live happily.
  - (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 :  $5 \times 3 = 15$
- (a)  $\{(p \cdot q) \vee r\} \cdot \sim r \supset (p \cdot q)$

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( Turn Over )

(b)  $[p \supset (p \supset q)] \supset q$

(c)  $[(p \supset q) \cdot (\sim p \vee r)] \supset (p \supset r)$

(d)  $(\sim p \cdot \sim q) \supset (r \vee p)$

(e)  $\{[(p \supset q) \vee \sim r] \cdot (\sim p \vee \sim r)\} \supset (q \cdot r)$

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2/EH-20 (ii) (Syllabus-2015)

2016

( April )

PHILOSOPHY

( Elective/Honours )

SECOND PAPER

( Logic )

Marks : 75

Time : 3 hours

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

Answer any **five** questions

1. Distinguish between correct reasoning from incorrect reasoning. Is it correct to define logic as the science of reasoning? 5+10=15

2. What do you understand by definition in 'logic'? What are the different kinds of logical definitions? What is the difference between 'definiendum' and 'definiens'? State and examine lexical definitions with example. 2+2+2+9=15

( 2 )

3. What is a proposition? Explain the distinction among sentence, judgment and proposition.  $3+12=15$
4. What are the various fundamental laws of thought in logic? Why are they called fundamental?  $12+3=15$
5. What is a categorical proposition? Explain the four basic categorical propositions.  $5+10=15$
6. Write short notes on any *two* of the following :  $7\frac{1}{2}\times 2=15$
- (a) Constant and variable
  - (b) Formal and informal fallacies
  - (c) Truth and validity
  - (d) Square of opposition
7. With reference to the categorical syllogism, answer any *three* of the following :  $5\times 3=15$
- (a) How are the four figures of syllogism determined?
  - (b) What is the fallacy of undistributed middle?

( Continued )

( 3 )

- (c) Why cannot we infer the conclusion when both the premises are particulars?
  - (d) How do we commit the fallacy of four terms?
  - (e) What is the fallacy of illicit major?
8. Explain the denotative, connotative and ostensive definitions. 15
9. Symbolize any *five* of the following :  $3\times 5=15$
- (a) Unless Maldives' tourism declines, Russia raises the price of natural gas.
  - (b) John is intelligent if not he is genius.
  - (c) I will study hard and pass the examination or I will fail the examination.
  - (d) Either Turkmenistan raises the price of natural gas and Maldives' tourism declines, or it is not the case that Indonesia requests more UN aid and that Sri Lanka's economy worsens.
  - (e) It is not the case that neither Maldives' tourism nor Indonesia requests more UN aid.
  - (f) Turkmenistan and Russia do not both raise the price of natural gas.

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( Turn Over )

D16/1435



(g) Bangladesh will object only if either Pakistan imposes tariffs or India calls for a meeting of the South Asian Association of Regional Cooperation.

(h) If today is Tuesday or Friday, then we have a logic class today. Today is not Tuesday. Therefore, if we do not have a logic class today, then today is not Friday.

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

(i)  $[p \supset (p \supset q)] \supset q$

(ii)  $p \supset [p \supset (q \cdot \sim q)]$

(iii)  $[p \supset (q \supset r)] \supset [(p \supset q) \supset (p \supset r)]$

(iv)  $(\sim p \cdot \sim q) \supset (r \vee p)$

(v)  $[(p \supset r) \vee (q \supset s)] \supset [(p \cdot q) \vee (r \cdot s)]$

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