



UNIVERSITY OF PERADENIYA

CENTRE FOR DISTANCE AND CONTINUING EDUCATION

Bachelor of Arts (External –New Syllabus) Examination 100 Level – 2025

බැචලර් උපාධි (බාහිර - නව නිර්දේශය) පරීක්ෂණය 100 මට්ටම - 2025

கலைத்தேர்வுப் பரீட்சை (வெளிவாரி-புதிய பாடத்திட்டம்) 100 வது தேர்ச்சி மட்டம் - 2025

(PHYE 102- LOGIC AND LOGICAL THEORY)

කාලය පැය (03) තුනයි.
මුණු(03) මණිத்தියාලங்கள்.
Time: (03) three Hours.

නොපැහැදිලි අත් අකුරුවලට ලකුණු කපනු ලැබේ.
எழுத்து தெளிவில்லாதவிடத்து புள்ளிகள்
குறைக்கப்படும்.
Marks will be deducted for illegible hand writing.

මෙම ප්‍රශ්න පත්‍රයේ අඩංගු ප්‍රශ්න සංඛ්‍යාව 10 කි.
There are 10 questions in the question paper.
இந்த வினாப்பத்திரத்தில் 10 வினாக்கள் உள்ளன.

ප්‍රශ්න 05 කට පමණක් පිළිතුරු සපයන්න.
Answer Five (05) Questions only
05 வினாக்களுக்கு மாத்திரம் விடை தருக.

01. Write notes on the following in Aristotelian logic

- I. Components of a proposition
- II. Propositions and sentences
- III. Connotative and denotative meaning of a term
- IV. Laws of thought

(04x05=20 marks)

02. (a) Explain the difference between immediate and mediate inference, giving examples.
(b) 'Critical thinking produces effective results.' Examine this claim.

(10x02=20marks)

03. (a) Illustrate the traditional square of opposition of propositions.

(08 marks)

- (b) Explain contradictory logical relationships, giving examples.

(12 marks)

04. (a) Define and explain what is 'Propositional eduction'.

- (b) Explain the 'Obversion', stating the rules to be followed for a valid obversion.

(02x10= 20 marks)

P.T.O.

05. Determine the validity of the following syllogisms. When the syllogism is invalid, state the rule/rules violated and name the fallacy that results.

- (i) All farmers are innocent. Some of those who are innocent are women. Therefore, some women are farmers.
- (ii) Man is mortal. Therefore, some birds are men because birds are mortal.
- (iii) No student is tall. No tall student is smart. Therefore, some of those who are smart are not tall.
- (iv) Elephants and trees are large. Therefore, trees are elephants.

(05x04=20 marks)

06.

- (a). Explain the reason why the fallacy of illicit major term does not occur if the conclusion is not a negative proposition.

(06 marks)

- (b). State the valid moods of the first and second figure and giving a symbolic example for each.

(14 marks)

07. (a) Compare and contrast Aristotelian and Indian syllogistic arguments.

(10 marks)

- (b) Distinguish between 'Swartanumana' and 'Parartanumana' in Indian logic.

(10 marks)

08. (a) Symbolize the following sentences using the predicate calculus and giving your scheme of abbreviation.

I. All teachers are kind.

II. Some are brave.

II. No man is eternal and a god.

IV. Some are not students.

(04x2.5 = 10 marks)

P.T.O.

(b) Explain the following with examples.

I. Existential Instantiation

II. Quantifier Negation

(02x05 = 10 marks)

09. (a) Explain two fallacies that could be grouped under fallacies of relevance in informal fallacies.

(08 marks)

(b) Explain briefly the following informal fallacies, giving an example each.

I. Argumentum ad populum

II. Fallacy of amphiboly

III. Fallacy of appeal to pity

(03x04 = 12 marks)

10. Write short notes on any four of the following.

i. Logical reasoning

ii. Stylistic variants

iii. Universal and Particular propositions

iv. Paradox

v. Dilemma

vi. Modern square of opposition of propositions

(04x05 = 20 marks)

