MATRICULATION AND SECONDARY EDUCATION CERTIFICATE EXAMINATIONS BOARD

UNIVERSITY OF MALTA, MSIDA

MATRICULATION EXAMINATION
INTERMEDIATE LEVEL
SEPTEMBER 2016

SUBJECT:	PHILOSOPHY
DATE:	31st August 2016
TIME:	4:00 p.m. to 7:05 p.m.

This examination paper has two Sections. Answer both Section A and Section B. Follow instructions given in each Section.

Section A: LOGIC and REASONING (30 marks)

Answer any three questions from Section A. Each question carries 10 marks.

1. (a) Identify the fallacy in the following passage and explain briefly the error in reasoning involved in the passage:
   'Don't waste your time studying the philosophy of Nietzsche. Not only was he an atheist but he ended his days in an insane asylum.' (4 marks)
   (William H. Halverson, *A Concise Logic*)

   (b) Translate the following arguments and check whether the implications involved are valid. Give a reason for your answer.

   i. If today is sunny, then we go out for a picnic. We go out for a picnic today. Therefore, today is sunny. (3 marks)
   ii. If Edmund went to school late, then he did not wake up on time. Edmund woke up on time. Therefore, he did not go to school late. (3 marks)

2. (a) Translate symbolically the following propositions and work out their truth-tables:

   i. If Rob will go to a restaurant and Mark will go to the cinema, then Edith will stay at home. (3 marks)
   ii. If Rob will go to a restaurant, then Mark will not go to the cinema or Edith will stay at home. (3 marks)
   iii. State whether the two propositions are logically equivalent. (1 mark)

   (b) Fill in the blanks:

   i. $A \rightarrow B,$,_____<_____ is valid (Modus Ponens) (1 mark)
   ii. $A \rightarrow B,$,_____<_____ is valid (Modus Tollens) (1 mark)
   iii. $A \rightarrow B,$,_____<_____ (transitivity of $\rightarrow$) (1 mark)

3. (a) For each of the following formulae, write down ONE **interpretation** which is a **model**.
   i. $(a \lor \neg b) \rightarrow c$ (1 mark)
   ii. $\neg (a \land b) \lor \neg c$ (1 mark)
   iii. $(a \rightarrow b) \leftrightarrow c$ (1 mark)

   (b) i. Write down the truth-table of the formula 'both a and b'. (1 mark)
   ii. A formula which implies 'both a and b' has one of two truth-tables. Write down these two truth-tables. (2 marks)

(c) The truth-tables of A, B, C and D are given below:

a	b	c	A	B	C	D
T	T	T	T	T	T	T
T	T	F	T	T	F	T
T	F	T	F	T	F	F
T	F	F	F	T	F	T
F	T	T	F	T	F	T
F	T	F	T	T	F	T
F	F	T	F	T	F	F
F	F	F	T	T	T	T

Arrange the four formulae in a sequence such that every formula implies any formula on its left. (4 marks)

4. (a) Examine each of the following arguments and state whether it is an inductive or a deductive argument:

   i.   All men are intelligent. Joseph is a man. Therefore, Joseph is intelligent. (2 mark)

   ii. The tables at home have four legs. The tables at my office have four legs. The tables at school have four legs. Therefore, all tables have four legs. (2 mark)

   (b) For any deductive argument found in question 4(a), state whether that argument is valid AND whether it is sound. Give reasons for your answer. (2 marks)

   (c) Fill in the blanks:

   i.   For ¬ (a ∨ b) to be T, a ∨ b must be _____ and so a must be _____ and b must be _____. (1 mark)

   ii. For ¬ (a ∧ b) to be F, a ∧ b must be _____ and so a must be _____ and b must be _____. (1 mark)

   iii. Therefore it cannot be the case that ¬ (a ∨ b) is T and ¬ (a ∧ b) is F simultaneously as _____. (1 mark)

   iv. Therefore the implication ¬ (a ∨ b) < ¬ (a ∧ b) is valid as _____. (1 mark)

Section B: ETHICS AND SOCIETY (70 marks)

Answer Question 5 and any other question from this Section. Each question carries 35 marks.

5. Is euthanasia ever justifiable? Give reasons for your answer.

6. What led the ancient Sophists to declare that there is no absolute truth, or that truth is unknowable even if it exists? What were the moral and ethical implications of their position?

7. Aristotle argues that each natural kind, including human kind, has a distinctive and discoverable function from which we can derive the good for that thing. What is the proper function of human beings according to Aristotle?

8. 'Whether you want to or not, you ought to keep your promises.' Explain Kant's notion of a Categorical Imperative.