MATRICULATION AND SECONDARY EDUCATION CERTIFICATE EXAMINATIONS BOARD

UNIVERSITY OF MALTA, MSIDA

MATRICULATION EXAMINATION
INTERMEDIATE LEVEL
SEPTEMBER 2017

SUBJECT:	PHILOSOPHY
DATE:	1st September 2017
TIME:	4:00 p.m. to 7:05 p.m.

This examination paper has **TWO** Sections. Answer both Section A and Section B.

Section A carries 30 marks and Section B carries 70 marks. Follow instructions given in each Section.

SECTION A: LOGIC AND REASONING

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

1. With reference to the following statement:

   "If Malta has the presidency of the European Union then it must be a member of the EU."

   a) Identify:
      i.   a junctor; (1)
      ii. an elementary proposition; (1)
      iii. a complex proposition. (1)

   b) Work out the truth table of the above statement. (2)

   c) i. Translate the following argument and check whether the implication involved is valid. Give a reason for your answer.
         "If Frank is not sick, then he is at work. Frank is not sick, therefore he is at work." (3)
      ii. What is the name of the above implication? (2)

   (Total: 10 marks)

2. a) Write down the whole formula and fill in the blanks:
      i. A↔B ,, _ ↔ _ < _ ↔ _ (transitivity of ↔) (1)
      ii. A >< B is symmetrical to _ >< _ (1)

   b) Identify the fallacy in this passage and explain briefly the error in reasoning:

      "Soldiers have to be physically fit and courageous to win a battle. Therefore only men should be allowed to join the army." (4)

   c) Examine each of the following arguments and state whether it is an inductive or a deductive argument:
      i. All my friends have fast laptops. Therefore all laptops must be fast. (2)
      ii. All mothers have children. Mary is a mother. Therefore Mary has children. (2)

   (Total: 10 marks)

3. a) Express the following statements symbolically:
    i.   Neither a nor b is true;   (1)
    ii. One and only one of a and b is true;   (1)
    iii. If a is true then b is false;   (1)
    iv. At least one of a and b is true.   (1)

   b) Given that:

   A stands for "Alex is at the gym".
   B stands for "it is 8 o'clock in the evening".
   C stands for "it is 7 o'clock in the morning".

   What does $A \rightarrow (B \vee C)$,, $\neg (B \sqcup C) < \neg A$ stand for?   (3)

   c) Check by means of a truth table whether the above implication is valid.   (3)

   (Total: 10 marks)

4. a) For each of the following formulae, write down **ONE** interpretation which is a model.
    i. $(a \vee b) \wedge c$ (1)
    ii. $\neg (a \wedge b) \rightarrow c$ (1)
    iii. $(a \sqcup b) \rightarrow \neg c$ (1)

   b) The truth-tables of A, B, C and D are given below.

   Arrange the four formulae in order such that moving from left to right each formula would imply the next.   (4)

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

   c) A formula which implies 'a if and only if b' has one of four truth-tables. Write down these four truth tables.   (3)

   (Total: 10 marks)

SECTION B: ETHICS AND SOCIETY

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

5. Explain what Jean-Paul Sartre means when he urges us to act in Good Faith as opposed to acting in Bad Faith.

6. The introduction of IVF (in-vitro fertilisation) always raises moral concerns. Identify and analyse the main issues with clear reference to the ethical dimensions of this debate.

7. Epicurean philosophy defines a good life as a life of pleasure. Discuss.

8. Explain how Rule Utilitarianism differs from Act Utilitarianism.