MATRICULATION AND SECONDARY EDUCATION CERTIFICATE EXAMINATIONS BOARD UNIVERSITY OF MALTA

ADVANCED LEVEL SAMPLE PAPER SYLLABUS 2016

SUBJECT: PHILOSOPHY

PAPER:

DATE:

TIME: 3 hours

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 logical fallacy in the following passage and explain briefly the error in reasoning involved in the passage.
 - 'There is no such thing as knowledge which cannot be carried into practice, for such knowledge is really no knowledge at all.' (2 marks)

(Wang Shou-Jen, Record of Instructions)

- (b) Express the following propositions using only elementary propositions, \neg , Λ , v and brackets.
- i. Every number from 1 to 3 is even.
- ii. At least one number from 1 to 3 is even.
- iii. One and only one number from 1 to 3 is even.
- iv. It is not the case that every number from 1 to 3 is even. (8 marks)
- (c) Using truth-tables, work out whether:
- i. A is commutative. (2 marks)
- ii. \rightarrow is associative. (2 marks)
- 2. (a) Show that $A \rightarrow B >< B \rightarrow A$ is not valid (i.e., that \rightarrow is not symmetric). State the reason clearly. (2 marks)
- (b) i. Write down 2 propositions (X and Y) constructed out of the elementary propositions a, b and c and the logical particles \neg and \land and such that the first (X) is true precisely when a, b and c are true, and the second (Y) is true precisely when a, b and c are false. See the truth-table below.
 - ii. Write down a proposition Z constructed out of the elementary propositions

a, b and c and the logical particles \neg , Λ and v and brackets and whose truth-table is as underneath:

a	b	c	X	Y	Z
T	T	T	T	F	T
T	Т	F	F	F	F
T	F	T	F	F	F
T	F	F	F	F	F
F	T	T	F	F	F
F	T	F	F	F	F
F	F	T	F	F	F
F	F	F	F	T	T

(2 marks)

(c) Find out whether the following implications are valid:

i.
$$\neg (avb) < \neg av \neg b$$

ii.
$$a \rightarrow b$$
, $b \rightarrow c < a \rightarrow c$ (6 marks)

- 3. (a) How are junctor-complex propositions composed? Answer in not more than five lines. (2 marks)
- (b) The following two premisses are known to be true:
 - 'If John entered the football ground, he paid at the gate.'
 - 'John did not paid at the gate.'
- i. Translate each of them symbolically. (2 mark)
- ii. State the standard valid implication *Modus Tollens*. (1 mark)
- iii. Which proposition do you conclude when you apply Modus Tollens to the above two premisses? (1 mark)
- (c) X and Y are formulae (containing precisely a and b as primary formulae) such that X and XvY have the following truth-tables:

Α	В	X	XvY
T	T	T	T
T	F	F	T
F	T	F	F
F	F	T	F

Y has then one of four truth-tables. Write down these four truth-tables. (4 marks)

- 4. (a) i. What is meant by saying that an argument is valid and sound.
 - ii. What is meant by saying that a proposition is tautological (or a tautology)? (2 marks)

- (b) By translating symbolically and working out the truth-tables find out whether the two propositions below are logically equivalent:
 - i. If it is Saturday and it is a holiday then we can sleep late.
 - ii. If it is Saturday then we can sleep late or it is not a holiday. (4 marks)
- (c) Translate symbolically the following argument and check whether the implication involved is valid. Give a reason for your answer.

Matthew will work in the library or in the study-room. If it is too noisy in the study-room, he will work in the library. The study-room is too noisy. Therefore, he will work in the library. (4 marks)

Section B: ETHICS AND SOCIETY (70 marks)

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

- 5. Outline the essential features of Sartre's Existentialism and discuss two of the following aspects of the Existentialist philosophy:
- i. Radical freedom.
- ii. Anguish and bad faith.
- iii. The creation of value.
- 6. Describe and discuss the key features of Utilitarianism as an ethical theory.
- 7. Illustrate the merits of Aristotle's practical ethics as a way for achieving self-fulfilment.
- 8. Discuss some of the privacy concerns raised by the Internet.