

MATRICULATION AND SECONDARY EDUCATION CERTIFICATE EXAMINATIONS BOARD
UNIVERSITY OF MALTA, MSIDA
MATRICULATION CERTIFICATE EXAMINATION
INTERMEDIATE LEVEL
SEPTEMBER 2012

SUBJECT:	PHILOSOPHY
DATE:	7th September 2012
TIME:	4.00 p.m. to 7.00 p.m.

Directions to Candidates

Answer **THREE** questions in all, **ONE** from **EACH** section. Questions carry equal marks.

Section A: Logic

1. (a) Explain in not more than 10 lines and by means of an example how it is possible for one to assert $a \vee b$ without being able to assert at least one of a and b .

- (b) (i) Show by means of a truth-table that $a \wedge b \gg a \vee b$ is invalid.
(ii) Is any one of the implications involved in (b)(i) above (i.e. $a \wedge b < a \vee b$ and $a \vee b < a \wedge b$) valid? Which?

- (c) Translate symbolically the following propositions:
 - (i) It is not the case that Tom likes neither philosophy nor sociology.
 - (ii) Tom likes philosophy or sociology.
 - (iii) If Tom likes philosophy he will like sociology.
 - (iv) Unless Tom likes philosophy, he will not like sociology.

- (d) (i) By means of truth-tables or otherwise find out which two of the four propositions in (c) above are equivalent.
(ii) What change must be made to one of the propositions of the remaining pair in (c) above so that these too become equivalent?

- (e) (i) Which, if any, of the following implications are valid?
 - (1) $A \rightarrow B, A < B$
 - (2) $A \rightarrow B, B < A$
 - (3) $A \rightarrow B, \neg A < \neg B$
 - (4) $A \rightarrow B, \neg B < \neg A$
(ii) If any of the implications in (e)(i) above are valid, can you give their names?

- (f) (i) Translate symbolically the following argument and check by means of truth-tables or otherwise whether the implication involved is valid:
If Peter went to the beach, Andrea or John went too. Therefore if Peter went to the beach but Andrea did not go, John went.
(ii) Which standard implication is involved in (f)(i) above?
(iii) Write down another possible conclusion that can be obtained using the premise in (f)(i) above and the name of the standard implication involved.

2. (a) Explain in not more than 10 lines and with the help of an example what is meant by the term ‘virtual bi-location’.
- (b) Translate symbolically the following argument and check whether the implication involved is valid:
Today is Wednesday or Thursday. If today is Thursday, we have a singing lesson. We do have a singing lesson. Therefore today is Thursday.
- (c) Write down the truth-tables of the formulae X and Y which correspond to:
(i) Formula X: a is true and b and c are false
(ii) Formula Y: a and b are true and c is false
(iii) Formula Z is equivalent to “Formula X or Formula Y”. Write down formula Z and its truth-table.
- (d) (i) A formula which implies ‘a and b’ has one of 2 truth-tables. Write down these 2 truth-tables.
(ii) A formula which is implied by ‘a and b’ has one of 8 truth-tables. Write down these 8 truth-tables.
- (e) For any proposition $\mathcal{A} \rightarrow \mathcal{B}$, the inverse is $\neg \mathcal{A} \rightarrow \neg \mathcal{B}$, the converse is $\mathcal{B} \rightarrow \mathcal{A}$ and the contrapositive is $\neg \mathcal{B} \rightarrow \neg \mathcal{A}$.
(i) Translate symbolically the following proposition:
If it is windy then Andrew will go wind-surfing.
(ii) Give in words (1) the inverse (2) the converse and (3) the contrapositive of the proposition in (e)(i) above.
(iii) Using the four propositions involved in (e)(ii) above, find out by truth-tables or otherwise the two pairs of equivalent propositions.
- (f) (i) Translate symbolically the following argument:
Neither Krista nor Alison prepared lunch. Therefore it is not the case that Krista or Alison prepared lunch.
(ii) The implication involved in (f)(i) above is valid as it is a standard implication; what is it called?
(iii) State the duality principle.
(iv) Dualise the implication in (f)(i) above.
(v) Is the resulting implication in (f)(iv) valid? Why?

Section B: Ethics

3. Discuss the moral responsibilities of the present generation towards those yet to be born.
4. ‘Human beings communicate not only verbally but also by means of gestures and actions.’ Discuss this statement in the context of human sexuality.

Section C: History of Philosophy

5. How does Aristotle analyse change?
Kif janalizzza l-bidla Aristotile?
6. Explain Plotinus’ idea of emanation.
Fisser l-idea tal-emanazzjoni ta’ Plotinu.