

A. Consider the following propositions:

p : Lecturers are generous.

q : Students hate attending classes

Write the compound propositions symbolized by:

$$(i) \quad p \vee \bar{q}$$

$$(ii) \quad (\overline{q \wedge p})$$

$$(iii) \quad \bar{p} \rightarrow q$$

1. Lecturers are generous or students do not hate attending classes
2. Students do not hate attending classes or lecturers are not generous
3. If lecturers are not generous then students hate attending classes

B. Let p be the proposition 'Today is Public Holiday' and q be 'I'll go to Town'.

Write the following propositions symbolically.

- 1) Today is Public Holiday or I'll go to Town, but not both.

$$p \vee q$$

- 2) If today is Public Holiday, then I won't go to Town.

$$p \rightarrow \neg q$$

- 3) I'll go to Town and today is not Public Holiday

$$q \wedge \neg p$$

- 4) Today is public Holiday but I will not go to Town

$$p \wedge \neg q$$