PHIL1012 INTRODUCTION TO LOGIC

PROBLEM SET 4 (S2 2021)

Submit your answers to Problem Set 4 via Canvas before 23:59, Wednesday of Week 7.

1. Is the following set of connectives functionally complete? Explain.

$$\{\rightarrow, \bot\}$$

2. Define the following connective † using only $\neg, \wedge$, and $\vee$.

α	β	γ	$\dagger(\alpha,\beta,\gamma)$
T	T	T	F
T	T	F	T
T	F	T	T
T	F	F	F
F	T	T	T
F	T	F	F
F	F	T	F
F	F	F	T