Specification and Verification I

(a) What is total about total correctness? [2 marks]

(b) State the WHILE-Rule of Floyd–Hoare Logic. [2 marks]

(c) Give a proof of \{T\} WHILE T DO SKIP {F}. [2 marks]

(d) What does the truth of \{T\} WHILE T DO SKIP {F} show? [2 marks]

(e) How are expressions like 1/0 handled in Floyd–Hoare Logic? [2 marks]

(f) What are verification conditions? [2 marks]

(g) Must the verification conditions be true for correctness? Briefly justify your answer. [2 marks]

(h) Name one method used to prove verification conditions. [2 marks]

(i) What are the “hooked” variables in VDM used for? [2 marks]

(j) What are weakest preconditions and weakest liberal preconditions? [2 marks]