Program Analysis and Testing
Exam 1 Review

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1 Python for PAT

1.1 Inspecting objects in python

1.2 Magic functions

1.3 Syntactic sugar

1.4 Regular expression

2 Concepts and application of concepts in PAT

2.1 Program Concrete/Abstract/Symbolic State

2.2 State space

2.3 Overapproximation

2.4 Reachability

2.5 Safety and Liveness properties

2.6 Meta-morphic relations

2.7 Undecidablity

2.8 Satisifiability

3 Control flow graph

3.1 Basic blocks

3.2 Transitions

4 Data flow

4.1 Def/Use

4.2 Def-use pairs

4.3 Def/Use in presence of references

4.4 Data flow algorithms