CS 311 ASSIGNMENT 3

Ansh Vivek - 210020002
Atharv Gade – 210020004
Pratham Ingavale - 210020015

March 4, 2024

1   Observations

The findings pertaining to the five programs, namely descending.asm, evenorodd.asm, fibonacci.asm, palindrome.asm, and prime.asm, as documented in Assignment 1, are outlined as follows:

Table 1: Observations

Program Name	Static Instructions	Dynamic Instructions	Cycles
Descending	21	277	1385
Even odd	9	6	30
Fibonacci	21	78	390
Palindrome	16	49	245
Prime	16	29	145

Static instructions represent the instructions present within the program file, while dynamic instructions refer to the actual number of instructions that have been executed. Cycles, on the other hand, are calculated as five times the number of executed instructions, considering the five distinct stages they traverse, which include Instruction Fetch, Operand Fetch, Execute, Memory Access, and WriteBack.