

Name: _____

ID#: _____

Question 1:

List two reasons for studying programming languages and briefly explain one of them. **(3 points)**

Question 2:

List three factors that will affect (positively or negatively) the readability of a programming language. **(2 points)**

Question 3:

What is the main difference between the compilation and interpretation of a program? **(3 points)**

Question 4:**(2 points)**

Briefly explain how a language generator works.

Question 4:**(5 points)**

Consider the following grammar:

$$\langle S \rangle \rightarrow a \langle S \rangle c \langle B \rangle \mid \langle A \rangle b$$

$$\langle A \rangle \rightarrow c \langle A \rangle \mid c$$

$$\langle B \rangle \rightarrow d \mid \langle A \rangle$$

Which of the following sentences is (are) in the language generated by this grammar?

a. abcd

b. acccbd

c. acccbcc

d. acd

e. accc