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ANSWERS:

Part 1:

1. The program generates long sentences because it has recursive grammar rules.  
   The responsible grammar rules are:  
   1 NP NP PP  
   1 PP Prep PP  
   This rules for example can generate the following:  
   NP -> NP PP -> NP PP PP -> NP PP PP PP -> …  
   and can be the same for the use of the PP rule.  
   The special rule is '1 NP NP PP', since we can use a noun phrase followed by a preposition phrase a lot of times in the same sentence, yet still get valid sentence (valid grammar).
2. It happens so rarely because of the rule 'Noun Adj Noun', which is a recursive rule that repeats the Noun with adjective, is one of 5 options to 'Noun',  
   all of the rules for 'Noun' has the same weight (equals 1) so the probability of using the recursive rule is 20%.