Q1: Multiple choice-like questions

i) Which of the following possible usages of a mock object have we seen examples of? (place a check next to the ones demonstrated in Berkeley lectures)

___ supplies non-deterministic results (e.g., the current time or the current temperature);
___ has states that are difficult to create or reproduce (e.g., a network error);
___ is slow (e.g., a complete database, which would have to be initialized before the test);
___ does not yet exist or may change behavior;
___ would have to include information and methods exclusively for testing purposes (and not for its actual task).

ii) In computer programming, a _______________ test is a means to describe the actual behavior of an existing piece of software, and therefore protect existing behavior of legacy code against unintended changes via automated testing.

iii) Software _____________ is the degree to which a software artifact (i.e. a software system, software module, requirements- or design document) supports testing in a given test context.

Q2: What is the main difference between unit testing and integration testing and how does the usage of mock objects fit into this and why?

Q3: What is ‘velocity’ in the Agile approach and how is it used to help manage teams?

Q4: In ‘Survey Finds 58% of Software Bugs Result from Test Infrastructure and Process, Not Design Defects’ there were a number of problems with testing raised. Specifically, what were the problems raised? Also, who did the survey and how does that relate to the problems raised?

Q5: Consider the following Cucumber:

Feature: User manages books
   Scenario: User adds a new book
      Given I go to the new book page
      And I fill in "Name" with "War & Peace"
      And I fill in "Description" with "Long Russian novel"
      When I press "Create"
      Then I should be on the book list page
      And I should see "War & Peace"

Explain how regular expressions figure into the translation of this into Ruby code that can actually run the test case.