King Fahd University of Petroleum and Minerals
Department of Mathematics and Statistics

Math 131 (Term 153) - Quiz 4

Student Name_____ **Student ID:** _____

Exercise 1

A hand of 7 cards is dealt from a deck of 52 cards.

(a) [**2 points**] How many hands are possible with 3 red cards?

(b) [**3 points**] How many hands are possible with 3 hearts and 2 black cards?

Exercise 2

Suppose that **S = {I, 2, 3, 4, 5, 6, 7, 8, 9, 10}** is the sample space for an experiment with events **E = {1, 3, 5}** ; **F = {3, 5, 7, 9}** ; and **G = {2, 4, 6, 8}**. Assume we have a uniform probability model. Find

(a) [**1 point**] $P(E)$

(b) [**2 points**] $P(E \cup G)$

(c) [**2 points**] $P[(E \cup G) \cap F']$