

Patent Law
Spring 2015
Prof. Ford

Take-home Midterm Exam

This take-home midterm exam is worth 20% of your course grade. It will be distributed on Monday, March 9, and is due back on **Monday, March 16, at 9:00 am**. By that time, you must return **two printed copies** of your exam responses to the Registrar's Office. Late exams will result in an automatic reduction of your course grade by **one-third letter grade per day**. Please do not put your name or any identifying information on your exam. Instead, place only your assigned exam number on the top right corner of your answers.

I expect all exam responses to be typed. Format your responses similarly to this document: **single-spaced, with 1.5-inch margins, and empty space between paragraphs**. Use 12-point Century, Palatino, Constantia, Book Antiqua, Cambria, or another high-quality proportionally spaced body-text font; please do *not* use Times New Roman. Number your pages.

Because you have flexibility within the week of when to complete the exam, other students may be completing this exam before or after you do so. Accordingly, you **must not discuss the exam with anyone, student or not**, until after March 16, 2015. Additionally, I will not be able to answer any questions about the exam while it is in progress. You may use any materials you wish while completing this exam.

This exam consists of **two short-answer questions**, each worth half of the grade. This exam has strict time and word limits. You must not spend more than **four hours** completing this exam (I expect you will need less time than that), and you must not use more than **250 words per question**. Please list your word count for each question after your response to that question. Please also type at the top of your exam the following sentences:

I affirm that I have not discussed this exam with other students or anyone else during its administration. I further affirm that I understand and have complied with the word and time limits, and that I have not spent more than four hours completing this exam.

If any of the questions are unclear, or don't provide necessary information, state explicitly any assumptions you make and answer the questions given those assumptions.

Good luck!

Question 1 (250 words maximum)

Prof. Mindy Lahiri, a materials scientist at Ohio University, filed for a patent on February 10, 2012, on a new type of hard drive consisting of a spinning disk made of nonmagnetic ceramic, embedded with magnetic nanorods.

For each of the following, explain whether the reference qualifies as prior art to Prof. Lahiri's application, for the purposes of the novelty provisions of 35 U.S.C. § 102. (In other words, explain whether it falls into one of the categories of prior art covered by § 102 and whether the timing makes it relevant prior art; do not consider whether it discloses each element of a patent claim.) For each, explain why or why not.

- a. An article by a rival researcher, Prof. Jessica Day, in the IEEE Journal of Quantum Electronics, titled *Magnetic Storage Using Nanorods* and published on August 15, 2011.
- b. A consumer hard drive sold by Hitachi, Ltd. in Japan on May 4, 2011.
- c. A competitive-intelligence report prepared by an engineer at Seagate Technology PLC, in the United States, distributed internally to Seagate executives on June 9, 2011, after the engineer disassembled the Hitachi hard drive to determine how it works.
- d. The textbook *Magnetic Nanoparticles*, by Sergey P. Gubin, published in Germany in 2009.

Question 2 (250 words maximum)

Claim 1 of Prof. Lahiri's patent application reads:

A device for the storage of information comprising one or more storage medium disks rotatably mounted about an axis, each of said storage medium disks comprising ceramic with embedded magnetic nanorods.

You are the examiner reviewing Prof. Lahiri's application. You are concerned that it might not satisfy the written-description and enablement requirements because the specification describes only one type of magnetic nanorods, those made from cobalt, while claim 1 covers all embedded magnetic nanorods.

I have not given you enough information to evaluate whether Prof. Lahiri's application satisfies these requirements. What information would you need to evaluate that question? Please list questions to which you would want to know the answers if you were the examiner. For each, give a one-sentence explanation of why the information would be helpful.