

Name: _____

Spring 2005

First Year Seminar

Final

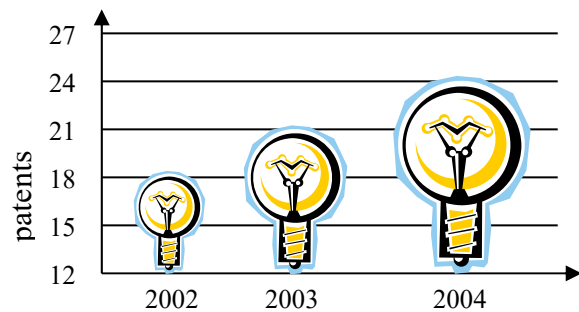
There are a total of five questions on this exam. You must answer all five questions. For questions 1-3, you must answer all parts. For question 4, you can pick two out of three parts to answer. For question 5, you can pick one out of two parts to answer. This is a timed exam; you will have 3 hours for the whole exam.

1. **[10 points]** (1-2 sentences each) For each of the terms below, explain what the term means, and its relevance to science or pseudoscience claims

- (a) **[4]** The ideomotor effect
- (b) **[4]** Placebo effect
- (c) **[2]** Remote viewing

2. **[20 points]** (about 2 paragraphs) The latest issue of Skeptical Inquirer features a test of “The Girl with X-Ray Eyes,” a young Russian girl who claims to be able to see inside people and provide them with medical diagnoses. She does not claim to be able to see through other objects, such as cardboard boxes, only that she can see inside people. Design a plausible test that would allow you to determine if she actually has the claimed ability. You should specifically mention: (1) how you will be able to distinguish “hits” from “misses” in a fair way, (2) how you would try to prevent a “false positive,” where she succeeds even if she doesn’t have X-ray vision.

3. **[15 points]** The graph at right shows the phenomenal growth in the number of [fictitious] patents granted to Wake Forest and its employees over the last three years.



a) **[8 points]** (calculation) Pick any two years – is there really evidence that the number of patents is growing?

b) **[7 points]** (about 2 sentences) Explain two ways the graphic at right is misleading.

4. **[30 points]** (Medium Essays – 2 or 3 paragraphs each) Write essays on any TWO of the following THREE topics

- (a) What is cryptozoology? Illustrate with at least one example, and explain what the evidence is for or against it. If you happened to write a book report on a cryptozoological creature, you have to include at least one other creature in this description.
- (b) What is spontaneous human combustion? Give a general description of the types of cases that most commonly occur, and explain how there might be mundane explanations for the phenomena described.
- (c) What is homeopathy? What are some arguments for or against it?

5. **[25 points]** (Long Essay – about 4 paragraphs) For ONE of the following TWO subjects, explain what the subject is, and how it does or does not fit the description of a pseudoscience, and how you would argue (for or against) the reality of the claim if you were trying to convince a believer/disbeliever that they are in error believing/disbelieving in it.
- (a) Dowsing
 - (b) Holocaust denial