

Robert Schmitt
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B. T. Hopkins
12/73

Modern Methodology

FINAL EXAMINATION

General Rules

This examination will be available for pick-up by students in the faculty secretaries' office at 1:00 p.m. on Wednesday, December 19. BE SURE TO PICK UP YOUR EXAMINATION CODE NUMBER AT THIS TIME.

Examination papers must be submitted to the faculty secretaries' office before noon on Saturday, December 22. The faculty secretary will check off your name on her list of examinees and write the time of submission on your paper.

All papers must be legibly typewritten double-spaced on 8 1/2 x 11 white (non-corrasible) bond. Attach the enclosed cover page on the front of your paper; be sure your code number--but not your name--is on it.

Late papers will be subject to an appropriate grade or other penalty to be imposed by the Dean.

DO NOT DISCUSS THIS PAPER WITH ANY PERSON WHATSOEVER, either orally or in writing. All of your work must be entirely your own, except insofar as you make use of written matter published prior to December 19, 1973--which you are free to do to any extent you desire.

Documentation will not be crucial, but do not hesitate to include citations (in the text) where you think they would strengthen your analysis. Do not include a bibliography.

Suggestions

START EARLY and DON'T WORK FOR MORE THAN TWO OR THREE HOURS AT A TIME.

DON'T OVERWORK. Like most exams, this one calls for a clear head much more than for long hours of hard labor. Besides, you can only do so much in a limited amount of time.

Do Part I first--preferably on Wednesday. It will get you warmed up for Part II.

Finish writing on Friday, leaving plenty of time for final edit and typing on Saturday morning.

Exam Questions--Part I--50%--5 hours

Most of the following questions can be answered in 10 minutes with a few sentences; some may require a half page. Write very concisely and to the point; don't ramble; avoid groping in print--grope first and then write.

Few of the questions have a single correct answer; but some invite more debate than others. Use your discretion. Present competing views where appropriate; indicate and explain your own view.

Do not include quotations in your answers, except when comparing and/or evaluating different views.

- 1. What are the roles of language, logic, and mathematics in science? **IIA 6**
- 2. What makes one hypothesis better than another as a tool for scientific enquiry? **II B**
- 3. What is the difference between "facts" and "hypotheses"--if any? **II e**
4. What is and what determines the basis of any scheme for classifying information? **II B**
5. How does an "operational" hypothesis or theory differ from a non-operational one, and what is the role of each type in scientific enquiry? **II c 7**
6. What is "causation" and what does it have to do (if anything) with "correlation" or "association" and with the idea of "necessary and sufficient conditions"? **II c 8**
7. What does it mean to "measure" something? **II c**
8. What are some important different types of measurement? (Give an example of each.) **II c**
9. What is the difference (if any) between the "theory of probability" and the "calculus of probability"? **II c 2**
10. What is a "measure of dispersion" in statistical parlance, what are some of the more commonly used "measures of dispersion", and what are the advantages/disadvantages of each? **II e**
11. What are the prerequisites of a "good" or "fair" sample in statistical theory and why are they, when satisfied, expected to produce reliable results? **II c**
12. Can it truly be said--and if so why--that every attempt at empirical verification is a bootstrap operation inasmuch as we cannot test any empirical proposition without making a blind (untested) empirical assumption about the "population" involved?

13. Generically or schematically speaking, what is it that computers do? II

14. What is the difference between "algorithmic" and "heuristic" analysis--whether performed by a person or a computer? II

15. What are some of the more important social policy questions raised by the past and possible future evolution and/or use of computers? II

16. What is a "scientific revolution", in Kuhn's view, and what are the conditions which give rise to same? III

17. What is "holistic" perception and thinking, and how does it differ (if at all) from traditional scientific enquiry? III

18. In your opinion, are any or all of the characteristics of a good scientist also those of a good lawyer? Explain. III

19. What do we gain and what do we lose (or risk losing) by viewing and studying "the law and/or our social system as a communication system and utilizing a framework of analysis of the sort proposed by Miller and Wiener? IVA 16

20. Is the McDougal-Lasswell approach to law--as you understand it--"scientific", or at least more so than other approaches? Explain. IVA

Exam Questions--Part II--50%--6 hours.

OUTLINE YOUR ANSWERS CAREFULLY BEFORE WRITING.

A. (30%--3 hours)

Assume that you are clerk to a criminal trial judge who is confronted with the question of whether or not to admit the kind of expert testimony concerning mathematical probabilities that was admitted in People v. Collins (attached hereto). Further assume that your judge has asked you to prepare a memorandum in which you 1) "brief" the Collins opinion, carefully articulating the issue(s), holding(s), and reasoning(s), and 2) critique the California court's reasoning, giving special attention to propositions concerning empirical methodology. Write the memorandum in 5 pages or less.

B. (20%--2 hours)

Assume that you are a member of a bar association committee which has been assigned the task of investigating the quality of legal services available in your community and the effects of same. Further assume that the chairman of your committee has asked you to write a memorandum in which you 1) state the issue(s) addressed,

the reasoning, and the conclusions of Nagel, The Attorneys: Disparities in Victory (attached hereto), and 2) critique the empirical methodology which Nagel employs to evaluate his hypothesis. Write the memo in 4 pages or less.

C. (10%--1 hour)

Assume that the senior partner of the law firm which employs you has accepted an invitation to speak at a meeting of the bar association on the subject "Science: Its Uses and Limits From a Lawyer's Viewpoint". Further assume that he has been reading McCain and Segal, The Game of Science (1969); that he knows you are something of a methodologist; and that he has asked you to tell him what you think of pages 168-71 of the book, concerning "The Limits of Science". Write a critique of this excerpt in 3 pages or less, taking care to deal with what it omits in addition to what it says.