

## Practice Test Questions

### Instructions:

Read each question carefully. Answer all questions. Time limit 4 hours. Begin immediately, Work in numerical order. Equipment remaining from question 1 may prove useful in questions 3 and 6.

- 1. Medicine.** You have been provided with a razor blade, a piece of gauze, and a bottle of scotch. Remove your appendix. Do not suture until your work has been inspected. You have 15 minutes.
- 2. History.** Describe the history of the papacy from its origins to the present day. Concentrate especially but not exclusively on its social, political, economic, religious, and philosophical impact on Europe, Asia, America, and Africa. Be brief, concise, and specific.
- 3. Public Speaking.** Two thousand drug-crazed aborigines are storming the classroom. Calm them. You may use any ancient language except Latin and Greek.
- 4. Biology.** Create life. Estimate the difference in subsequent human culture if this form of life had been created 500 million years earlier. Pay special attention to its probable effect on the English Parliamentary System.
- 5. Music.** Write a piano concerto. Orchestrate and perform it with flute and drum. You will find a piano under your seat.
- 6. Engineering.** The disassembled parts of a high power rifle have been placed in a box on your desk. You will also find an instruction manual printed in Swahili. In 10 minutes a hungry Bengal tiger will be admitted to the room. Take whatever action you feel is appropriate. Be prepared to justify your decision.
- 7. Sociology.** What sociological problems might accompany the end of the world? Construct and experiment to test your theory.
- 8. Management Science.** Define management. Define science. How do they relate? Create a generalized algorithm to optimize all managerial decisions. Assuming a Cray X/MP CPU supporting 50 terminals, each terminal to activate your algorithm, design the communications interface and all necessary control problems.

**9. Psychology.** Based on your knowledge of their works, evaluate the emotional stability, degree of adjustment, and repressed frustration of each: Alexander of Aphrodisias, Ramses II, Gregory of Nicea, and Hammurabi. Support your evaluation with quotations from each man's work. It is not necessary to translate.

**10. Economics.** Develop a realistic plan for refinancing the national debt. Trace the possible effects of your plan on these areas: Cubism, The Donatist Controversy, and the wave theory of light.

**11. Epistemology.** Take a position for or against truth. Prove the validity of your position.

**12. Classical Physics.** Explain the nature of matter. Include in your answer an evaluation of the impact of the development of mathematics on science.

**13. Modern Physics.** Produce element 119. Determine its half-life.

**14. Energy Resources.** Construct a working fusion reactor.

**15. Philosophy.** Sketch the development of human thought. Estimate its significance. Compare this with the development of any other kind of thought.

**16. General Knowledge.** Describe in detail, briefly.

**17. Extra Credit.** Define the universe. Give three examples.