chapter 4 THE EXAM:
"Day of Terror", or "Hooray!
The Big Game"?

...YOU'LL WORRY LESS IF YOU UNDERSTAND YOUR OPPONENT...
"Day of Terror", or "Hooray! The Big Game"?*

Many students dread and fear exams and quizzes. Such an attitude suggests that:

PROPER STUDY WAS NOT DONE!
(Solution: See Chapters 2 and 3)

OR

THERE'S AN "INFERIORITY COMPLEX" PROBLEM!
(Solution: Nonsense! That's not a complex! The good news is that you are probably superior in many more respects than those in which you are inferior. Proper study (Chapter 2) and "examsmanship" (Sect. 4.1) will convince everyone that you are not inferior.)

OR

THE WRONG PHILOSOPHY IS RAMPANT!
(Solution: An exam is not a murder trial where, in spite of your innocence, you might get hanged. An exam is a game, with you pitted against the professor. But the good news is that your "opponent" really wants you to win the game. The professor is more coach than opponent in this game and would rather you won to confirm a "good coaching job"!)

*For those rare courses in which you are simply enthralled with learning AND disinterested in the grade, you can skip this chapter and go directly to Section 5.2. The exam in this type of course is simply one more opportunity to communicate with your prof. ENJOY IT!
From a professor's point of view, the ideal exam is one that accurately measures the student's knowledge and skills. This rarely occurs, since most exams also measure how tired the student is, how tense the student is, how the student feels about personal problems, etc. and—most critical—how well the professor designed the test and the test environment!

From a student's point of view, the ideal exam is one that gives the student a better grade than his/her knowledge of the material deserves. This rarely occurs, for the reasons noted above and because most students will lose points for "dumb mistakes" (e.g., $2 \times 2 = 22$) in addition to those lost for lack of knowledge (or time).

EXAMSMANSHIP CONSISTS OF TECHNIQUES ("TRICKS OF THE TRADE") TO HELP ENSURE THAT YOUR GRADE WILL REFLECT YOUR KNOWLEDGE AND (with a bit of luck) MAYBE MORE! EXAMSMANSHIP consists of two stages: what you do to get ready for the test and what you do during the test.

4.1 "TRICKS" TO GET READY FOR EXAMS

The most important "trick" is really sneaky. Your professor will never expect this one!

STUDY

(consistently and efficiently, to really know as much as you can).

The second more important "trick" is to be rested for the exam. "ALL-NIGHTERS ARE STUPID!" "Dumb" mistakes made when you're tired can offset whatever points you gain from cramming. In addition, all studies confirm that the method of "cram/goof off/cram", etc. can be disastrous in courses with comprehensive exams. It is the least efficient method known for long-term retention. (See page 27).
So far, these discussions don’t seem to really offer any “tricks”, just old-fogey advice. Well, here come some tricks that can very simply result in improved grades.

4.1a Prepare Written “Read-and-Destroy Crib Notes”

Having determined, as thoroughly as possible, (the “guessing game”, page 24) what the exam is most likely to cover, prepare a brief list of “crib notes” with key “cues” (page 25) from your lecture notes (plus names & dates for history, formulas for physics, terms or reactions for chemistry, etc.). Your “crib notes” should be brief. Limit them to just those crucial items you fear you might forget during the exam. Use these “crib notes” as needed on practice exams. Study them carefully UP TO THE POINT OF ENTERING THE EXAM ROOM.

BEFORE ENTERING THE EXAM ROOM, TEAR UP THE CRIB NOTES AND TOSS THEM IN A WASTEBASKET (OR HAND THEM TO A PROCTOR, IF THIS IS PERMITTED).

FAILURE TO DESTROY THE CRIB NOTES
BEFORE ENTERING AN EXAM ROOM COMES UNDER THE HEADING OF CHEATING. (See page 60.)

Now, you can carry the information from the crib notes into the exam room, but ONLY INSIDE YOUR HEAD. When you have been seated, you can jot down the remembered information on paper (on the question set, if one is provided, on the back of an “answer form”, . . . . . . . on any piece of paper that won’t be considered an illegal crib note).

The advantage of jotting these brief notes is that you have them handy if you need them and temporarily forget the information.

4.1b Plan for a Specific Grade

Decide in advance what grade you are after. If this is less than an A, you can concentrate both study time and exam work on only the necessary percentage of the total material.

4.1c Use “Real” Exams for Practice

In many courses, the professor will announce the availability of old “quiz files”. These are useful in determining specific learning objectives on which to concentrate your study efforts. They are also very useful in determining question formats and how “good” answers are expected to be presented. They further indicate the number of questions usually used, the relative points per
question, and the relative difficulty and time-demand per question. All of these clues will help you plan how to spend your time on the real exam TO GET THE MOST POINTS POSSIBLE.

(If no old exams are available, try to prepare some as you expect them to be—using class notes and homework assignments. Your skill in doing this will improve after you have taken some exams. You should probably not “swap sample exams” with your friends. Student-prepared exams are usually much tougher than those prepared by pros.)

4.1d Practice Exam Situations

In most cases, there will be a time limit on an exam. You want to get the most points possible within this time. You also want to avoid “dumb mistakes” caused by time pressure. Try using your “practice exams” in the following sequence:

1. First complete all studying, reviewing, and “mental-crib-note-making” you had planned to do.
   
   (Also be sure you are familiar with the techniques of Section 4.2, page 56. These, too, need to be practiced. REMEMBER: If you’re after less than an A, you don’t have to worry about all questions.)

2. Second, go to your Monk’s Cell with only the practice exam and other materials permitted in the real exam (i.e., no crib notes along at this stage), plus an alarm clock. SET THE ALARM CLOCK FOR FIVE MINUTES LESS THAN THE REAL EXAM. Start the clock. Take a few deep breaths and practice “CALM-DOWN” (Section 4.4, page 59) for about 30 seconds. Then start work. Use all the techniques described in Section 4.2. Stop work when the alarm goes off.

While you’re working on the exam, practice focusing ALL of your attention on the exam. “Tune out” all other “audiovisual input” from your surroundings. This is important so that you can learn to work on a real exam without being distracted by the working of your neighbor, prowling proctors, etc. When you stop work, try to remember if you heard or saw anything distracting while you were working. If you did, practice some more on “tuning out” what goes on around you.
If you finished the planned percentage of work, checked your work to your satisfaction, covered your answers, and felt good BEFORE the alarm rang, GREAT! You are virtually ready for the big game. Check to see if you missed any questions, (if so, analyze why), correct any errors by study and review if necessary, then play this game again for practice. You should also analyze why you got some answers RIGHT. (Did you REALLY know the material, or was it “lucky guessing”?)

If you did not finish before the alarm went off, then you MUST:

—IMMEDIATELY ANALYZE WHAT YOU DID THAT WASTED TIME.

a. Did you try to check for errors in problems by hunting through scratch work?
   That’s very inefficient. Errors are often “simple accidents” and very hard to find. It is much more efficient to leave the problem, finish the next one or more, then come back and redo the problem entirely. It is important that you always do each problem in a numbered “block” (as provided on the exam or as marked yourself). Then you won’t waste time hunting for it when you’re checking. On a “re-try”, make a new numbered block (marked “re-try”). If you still have trouble, compare the work in both original and re-try blocks for clues to errors.

b. Did you read too slowly?
   If so, see pages 30 and 47 for improved-reading skills. You must practice “effective skimming” techniques.

c. Did you read ALL of the choices on multiple-choice questions, even after you were sure of the correct choice?
   You should always stop after finding the correct choice and go immediately to the next question. The other choices can be looked at later when you’re checking your work.

d. Did you spend too much time on early, lengthy questions, thus running out of time before you got to shorter questions later on?
   You have to develop discipline to skip questions that appear too time-consuming. Finish all of the “quickies” (or “big pointers”) first, then work on lengthier (or small point) questions.

e. Did you do something else that wasted time?
   Identify and try to correct the problem.

*Some professors give exams on which no one can finish all questions in the allowed time. In such cases, you define “finish” as the part of the whole exam needed to get the grade you want.
3. Now, since you have done the necessary review and have analyzed and decided on corrections for your problems, take a break. Then, get a fresh practice exam and start over at step (1). Repeat as much as possible until you develop good techniques for handling timed exams. Along with these techniques comes INCREASED SELF-CONFIDENCE and a better chance to view the real exam as a game, not a murder trial.

4.2 "TRICKS" DURING THE EXAM

Here's your chance. You can walk out of this exam a winner! (If you don't, don't despair. There are many more games ahead and you can still end up with a fine "season average.")

4.2a General "Tricks"

1. Be sure that you have all necessary materials (page 60). Arrive on time, but avoid conversations with students who seem to be nervous about this exam.

2. Jot down your "mental crib notes" (page 53). Then take about 30 seconds to go through your "calm down" procedures (page 59).

3. READ the directions and questions carefully, but not slowly. (WATCH FOR, and circle KEY WORDS such as (never), (always), "which is correct") versus "which is (incorrect"). These will also be keys to checking your work efficiently.)

4. PACE YOUR WORK, skipping time consuming or low point questions (temporarily), or any you can't handle quickly for any reason. (If you are after less than an A, you can spend most of your time on the pre-planned percentage, saving just a few minutes for possible "sensible guesses" on the rest).

5. Estimate answers for math problems as an immediate check on your work.

6. Don't waste TIME (see page 55).

7. Go back and answer all "necessary" questions temporarily skipped.

8. Allow time for at least a brief review of your work (including rechecking "key word" clues). If you feel unsure of an answer, check it! Evidence indicates that, on certain types of questions—particularly those of purely "recall" type—your "first guess" is probably (but not always) best, so don't change such answers unless you really spot an error.
HOWEVER, a recent study showed that 85% of the students in the group surveyed who changed answers got the “new” answer RIGHT. DON'T HESITATE to change an answer if your checking indicates an error. The secret to changing answers properly is to identify WHY the original answer was wrong and WHY the new answer is correct.

4.2b Special “Tricks”

There are a few “tricks” that can often net you some more points.

Unless the exam is the type (fortunately rare) on which no one is expected to be able to answer everything, ANSWER ALL QUESTIONS.

1. On a multiple-choice exam, every wrong choice you can eliminate increases your odds when you have to “guess”. (Proper study will decrease the need to guess.) If you leave the answer space blank, you will certainly get zero points for the question. Any odds are better than “100% for ZERO”, even on exams with a “penalty for guessing”.

2. Rewrite questions, “key words”, and answer choices to improve your chances. (If you are not allowed to write on the question pages, make “revision” notes on your scratch paper.) If a question contains unnecessary information (such as numbers not needed), scratch out the useless information. Change “key words” as useful (e.g., change “correct” to “TRUE” and “incorrect” to “FALSE”). On any multiple-choice question having all INDEPENDENT “real choice” answers, delete the ONE most confusing to you and insert in its place “NONE OF THE OTHERS”. (Thus, you don’t CARE what that choice said. If the other choices don’t contain the right answer, your “NONE OF THE OTHERS” is IT.)

3. On a fill-in-the-blank or “short answer” exam, always (well, almost always) write something. (Sometimes graders other than professors, often pressed for time and perhaps less knowledgeable, will be grading your exams. If you put the exact answer the professor wrote on the “key”, you will surely get full credit. If you leave it BLANK, you will surely get zero credit. But if you have put something reasonable, even if not completely “right”, you have a chance for partial credit).

4. On “problems” questions (e.g., math, chemical reactions, vector diagrams, etc.), ALWAYS put something, even if it is only a brief statement as to how the problem should be approached. Again, partial credit is possible, but a BLANK is a sure zero.

5. On discussion or “essay” exams (or English “themes” or “papers”), ALWAYS write something, even if it is only a logical outline. Write neatly and use correct grammar and spelling. Even if you have only a vague idea of the subject, partial credit is possible. (It is not unknown for a neatly done “snow job” to get more points than a sloppily done discussion with quite accurate content.)

6. There is a word of caution to consider. A sensible (but wrong) answer may get some points, but a really ridiculous answer might lead the grader to look at your other answers with more prejudice (and more care) than you might like. A blank is better than authenticated stupidity.
4.2c Pacing

Pacing your work is the key to completing the exam and avoiding "time-panic".

1. Practice in a simulated exam environment, using an alarm clock set for 5 minutes less than the real exam time (page 54).

2. During practice and during the exam, quickly divide the number of questions into (the available time – 5)* to get the average time-per-question. On exams with questions with different numbers of points, the "time per 10 points" is better. Make a habit of checking your watch at this interval. (Checking too frequently increases nervousness. Not checking often enough spoils smooth pacing and increases the chances for "last minute rush".) When you find that you’re spending more than the average time on a question (or for the number of points available), leave that question temporarily. Finish "quicker" questions, then come back.

3. If you can’t see how to answer a question or you know you made an error, but can’t spot it, leave this question immediately. Work a few others (all you can, in fact), then come back and tackle this question afresh (i.e., ignore anything you wrote the first time). Fumbling with a question or searching for an error is a DANGEROUS WASTE OF TIME.

4. If you complete the exam early (as you SHOULD), check all of your work VERY carefully. Be sure that you can see WHY each answer is right or WHY an answer should be changed. (If you still have some time left, have fun by analyzing the prof’s questions to discover how the unwary student could have been “caught”. But DON’T read the questions like a Philadelphia lawyer looking for “tricks”.)

4.2d Using Other Information

Know and use every available resource.

1. If a professor supplies data tables or an information list (e.g., physical constants or formulas), find out in advance the kind of information available and see how you can get maximum use from it. (For example, a Table of Solubility Products for a chemistry exam can often be used to check a chemical formula that you feel doubtful about.)

2. If the exam room has posted charts or tables, familiarize yourself with these in advance. Try to get a seat from which you can see these easily, without giving the impression that you just might be looking at another person’s work instead.

3. On open-book exams, make index tabs for key passages.

4. If the prof or proctors will answer questions during the exam, don’t hesitate to ask when you need clarification of a question.

4.3 CLASS PARTICIPATION AND QUIZZES

In courses for which “class participation” and/or quizzes count along with exams, BE PREPARED and PARTICIPATE.

*This allows 5 minutes for rechecking.
1. If you understand only parts of what is covered in discussions, VOLUNTEER PARTICIPATION ON THE PARTS YOU KNOW. (This reduces your chances of being called on to discuss something you don't understand.)

2. If you are called on to discuss something you don’t understand, DON'T BLUFF. (Also, don’t snore, faint, or ask to go to the bathroom instead.) DO RESPOND, by explaining that you don’t know the answer and stating as clearly and concisely as possible why you don’t know. (However, few pros will be enchanted if that “why” is a lack of study, so think of a better reason.)

3. For quizzes, especially “pop quizzes”, the key to success is your REGULAR STUDY SCHEDULE! Scheduled quizzes are “mini-exams”, for which standard examsmanship techniques apply (pages 56-57).

4.4 “CALM-DOWN” TECHNIQUES

It is not uncommon for students to be nervous about an exam. A certain amount of nervousness is acceptable and may actually improve your performance. However, being TOO nervous can cause you to make “dumb” mistakes and to use time inefficiently. Some students actually experience severe “exam trauma”, in which they really panic during the exam. Memories “go blank”; familiar situations appear totally new; and problems seem impossible.

Many college counseling centers offer special programs to help avoid or overcome “exam trauma”. If this is a serious problem for you, consult a trained counselor.

There is, however, a simple CALM-DOWN technique that works surprisingly well for most persons. If this technique is used just before you start work on an exam (and again, if necessary, when you suddenly feel nervous because you can’t answer a question), it can have dramatic results in overcoming counterproductive nervousness. (Although this technique is unlikely to have any adverse side effects, you should consult your physician before using it if you have any type of health problem.)

4.4a Calm-Down Method

**STEP 1.** Close your eyes.

**STEP 2.** Rest your elbows on the desk and squeeze your ear lobes tightly. (But not tightly enough to HURT!)

**STEP 3.** Take a deep breath while counting to 7. (Push your “tummy” out while inhaling.)

**STEP 4.** Hold your breath while counting to 7.

**STEP 5.** Exhale fully while counting to 7. (Pull your “tummy” in while exhaling.)

**STEP 6.** Repeat steps 3, 4, & 5 two more times.

**STEP 7.** Open your eyes, release your ear lobes, and FEEL CALMER.
Thousands of students have used this method successfully in reducing nervousness during exams or just before a public performance (such as a speech, a play, or a musical solo). There IS a physiological basis to the method. If you’re interested in WHY it works, consult a physician or a clinical psychologist.

4.5 CHEATING

The best, and ONLY “Trick” here is:

DON’T

(DON’T EVER)

(Even if your morals are those of a hybrid of a raunchy tomcat and a con man, at most colleges it ISN’T WORTH THE RISK. Penalties for cheating are often like hanging for jaywalking.)

4.6 EXAM EQUIPMENT

Find out what sorts of materials are needed and permitted for exams in each of your classes. Also find out what items are FORBIDDEN. (Many profs, for example, forbid having any loose books or papers during an exam. In such cases, have a briefcase or backpack in which you can place ALL of your materials.)

For each class, prepare a checklist similar to the following example. Use it to check that you have ALL appropriate materials BEFORE you go to the exam.

Table 4.1. Sample Checklist of Exam Equipment

- “Mental Crib Notes” (to be destroyed before entering the exam room)
- SHARPENED pencils (more than 1) (or GOOD pens, if required)
- Eraser
- “Pocket” pencil sharpener
- Calculator (or Slide Rule)
  - Calculator checked for full charge and proper functioning
- Spare calculator batteries
- Allowed “resource materials” (e.g., data tables, index-tabbed books, etc.)
- Briefcase or backpack
- BLANK “scratch paper” (if allowed)
- Others

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IF YOU TAKE YOUR EXAMS PREPARED, RESTED AND CALM, AND IF YOU PRACTICE "GOOD EXAMSMANSHIP", YOU SHOULD DO QUITE WELL. When you do, reward yourself for a job well done (page 64).