CRIFFS PREPARATION GUIDE

AMERICAN COLLEGE TESTING

By Jerry Bobrow, Ph.D. William A. Covino, Ph.D. David A. Kay, M.S. Stephen Fisher, M.A. Harold Nathan, Ph.D.

American College Testing PREPARATION GUIDE

griffin had make and out as weby

Jerry Bobrow, Ph.D.
William A. Covino, Ph.D.
David A. Kay, M.S.
Stephen Fisher, M.A.
Harold Nathan, Ph.D.

was Lewis Copyrights

Consultants

Merritt L. Weisinger, IX
Peter Z. Orton, M. Ed.



ACKNOWLEDGMENTS

I would like to thank the following people for their invaluable assistance in typing, proofreading, and editing the manuscript: my wife, Susan Bobrow; my coordinating assistant, Joy Mondragon; and my typist, Sally Reilly. I also wish to thank Harry Kaste of Cliffs Notes for his vigilant final editing and uncompromising attention to every detail of the production process.

ISBN 0-8220-2004-1 © Copyright 1982

> by Jerry Bobrow

All Rights Reserved Printed in U.S.A.

PREFACE

YOUR ACT BATTERY, STUDENT PROFILE, AND INTEREST INVENTORY ARE IMPORTANT TO YOUR FUTURE! They can help you (1) assess your interests and skills, (2) plan your career, and (3) get a scholarship. Because of this, your study time must be used most effectively. You need the most comprehensive test preparation guide that you can realistically complete in a reasonable time. It must be short, direct, precise, easy-to-use, and thorough, giving you all the assistance you need to do your best on the ACT Battery.

In keeping with the fine tradition of Cliffs Notes, this guide was developed by leading experts in the field of test preparation as part of a series to specifically meet these standards. The testing strategies, techniques, and materials have been researched, tested, and evaluated, and are presently used at test preparation programs at many leading colleges and universities. This guide emphasizes the BOBROW TEST PREPARATION SERVICES approach,

which focuses on the six major areas:

- 1. Ability Tested
- 2. Basic Skills Necessary
- 3. Understanding Directions
- 4. Analysis of Directions
- 5. Suggested Approaches with Samples
- 6. Practice-Review-Analyze-Practice

These major areas include valuable terminology, formulas, tables, and charts to assist you in the specific areas. Two complete simulation ACT Batteries are also included with answers and *in-depth* explanations.

This guide was written to give you the edge in doing your best by maximizing your effort in a reasonable amount of time. It is meant to augment, not substitute for, formal or informal learning throughout junior high and high school. If you follow the Study Guide Checklist in this book and study regularly, you will get the best test preparation possible.

STUDY GUIDE CHECKLIST

1.	Read the ACT Information Bulletin.
2.	Become familiar with the Test Format, page 3.
3.	Familiarize yourself with the answers to Questions Commonly
	Asked about the ACT, page 5.
4.	Learn the techniques of Two Successful Overall Approaches, page
	7.
	Carefully read Part II, Analysis of Exam Areas, beginning on page 11.
6.	Strictly observing time allotments, take Practice Test Battery
	No. 1, section-by-section, beginning on page 37.
7.	Check your answers, page 83.
8.	Analyze your Practice Test Battery No. 1 results, page 86.
9.	Fill out the Tally Sheet for Problems Missed to pinpoint your
	mistakes, page 87.
10.	While referring to each item of Practice Test Battery No. 1, study ALL the Answers and Explanations that begin on page 91.
11.	Review as necessary basic skills and techniques discussed in Part
	II of this book.
12.	Selectively review fundamental formulas, terminology, and general information given in the Appendices of this book.
13	Strictly observing time allotments, take Practice Test Battery
	No. 2, section-by-section, beginning on page 123.
14.	Check your answers, page 168.
	Analyze your Practice Test Battery No. 2 results, page 171.
16.	Fill out the Tally Sheet for Problems Missed to pinpoint your
	mistakes, page 172.
17.	While referring to each item of Practice Test Battery No. 2, study
	ALL the Answers and Explanations that begin on page 175.
18.	Again, review as needed Part II, Analysis of Exam Areas.
19.	Once more, selectively review essential information contained in
	the Appendices.
20	. CAREFULLY READ "FINAL PREPARATION" on page 254.

Contents

Preface	vii
Study Guide Checklist	ix
PART I: INTRODUCTION	
FORMAT OF A RECENT ACT	3
GENERAL DESCRIPTION	4
QUESTIONS COMMONLY ASKED ABOUT THE ACT	5
TAKING THE ACT BATTERY: TWO SUCCESSFUL OVERALL APPROACHES.	7
PART II: ANALYSIS OF EXAM AREAS	
Ability Tested • Basic Skills Necessary • Directions • Analysis of Directions • Suggested Approach with Samples	11
Introduction to Test 2: Mathematics Usage	15
Introduction to Reading Comprehension Passages and Active Reading	21
Ability Tested • Basic Skills Necessary • Directions • Analysis of Directions • Suggested Approach with Samples • Additional Study Aids	23
Introduction to Test 4: Natural Sciences Reading	26

PART III: PRACTICE-REVIEW-ANALYZE-PRACTICE Two Full-Length Practice Tests

PRACTICE TEST BATTERY No. 1	
Answer Sheet for ACT Practice Test Battery No. 1	33
Test 1: English Usage	37
Passage 1	37
Passage 2	39
Passage 3	41
Passage 4	
Passage 5	
Test 2: Mathematics Usage	50
Test 3: Social Studies Reading	56
Part A: Reading Comprehension	56
Part B: General Knowledge	69
Test 4: Natural Sciences Reading	72
Part A: Reading Comprehension	72
Part B: General Knowledge	80
Answer Key for Practice Test No. 1	83
Scoring Your ACT Battery	85
Practice Test No. 1: Analysis Sheet	86
COMPLETE ANSWERS AND EXPLANATIONS FOR PRACTICE TEST BATTERY NO. 1	
Test 1: English Usage	91
1est 2: Mathematics Usage	97
Test 3: Social Studies Reading	103
Test 4: Natural Sciences Reading	111
PRACTICE TEST BATTERY No. 2 Answer Sheet for ACT Practice Test Battery No. 2	
Answer Sheet for ACT Practice Test Battery No. 2	119
Test 1: English Usage	123
Passage 1	123
Passage 2	125
Passage 3	130
Passage 4	132
Test 2: Mathematics Usage	135
Test 3: Social Studies Reading	142
Part A: Reading Comprehension	142
Part B: General Knowledge	154
Test 4: Natural Sciences Reading	157
Part A: Reading Comprehension	157
Part B: General Knowledge	165
Answer Key for Practice Test No. 2	168

Scoring Your ACT Battery Practice Test No. 2: Analysis Sheet	170 171
COMPLETE ANSWERS AND EXPLANATIONS FOR PRACTICE TEST BATTERY NO. 2	
Test 1: English Usage	175
Test 2: Mathematics Usage	181
Test 3: Social Studies Reading	189
Test 4: Natural Sciences Reading	198
APPENDICES	
APPENDIX A: IMPORTANT TERMINOLOGY, FORMULAS, AND GENERAL	
MATHEMATICAL INFORMATION THAT YOU SHOULD BE FAMILIAR WITH	
Common Math Terms That You Should Be Familiar With	205
Math Formulas That You Should Be Familiar With	205
Some Basic Trigonometric Ratios	206
Some Basic Logarithms	206
Important Equivalents That Can Save You Time	206
Measures	207
Words and Phrases That Can Be Helpful in Solving Problems Addition • Subtraction • Multiplication • Division	208
Geometry Terms and Basic Information	208
Angles • Lines • Polygons • Circles	
APPENDIX B: SOCIAL STUDIES TERMINOLOGY	
An rican History	210
and Anthropology	217
Economics	222
APPENDIX C: CHRONOLOGICAL TABLE	225
APPENDIX D: NATURAL SCIENCES TERMINOLOGY	235
Biology	235
Chemistry	242
Physics and Astronomy	246
Geology	249
Final Preparation: "The Final Touches"	254
Acknowledgment of Sources	255

Part I: Introduction

Part is introduction

FORMAT OF A RECENT ACT

Test 1:	English Usage	40 minutes	75 questions
dds aol	rofte Section collect informs	e ACT Student P	is has reginava
Test 2:	Mathematics Usage	50 minutes	40 questions
Test 3:	Social Studies	35 minutes	52 questions
our SP	Reading Comprehension General Knowledge	32-40 questions 12-20 questions	
Test 4:	Natural Sciences	35 minutes	52 questions
the for	Reading Comprehension	32-40 questions	
	General Knowledge	12-20 questions	
Total Te	sting Time 160 minutes = 2 ho	ours, 40 minutes	Approximately 219 Questions

GENERAL DESCRIPTION

The ACT Assessment Program helps you to make important decisions about your future. It does so in two ways. First of all, The ACT Interest Inventory and the ACT Student Profile Section collect information about your past experiences, your interests, and your goals. You will fill out the Inventory and the Profile when you register for the ACT Assessment. The ACT Assessment is the second phase of the program; it is a test battery which you take at an ACT test center on a designated national test date. The tests cover four subject areas: English, mathematics, social studies, and natural sciences.

Four or five weeks after you take the ACT Assessment, your SPR (Student Profile Report) will be sent out. Recipients include the colleges and agencies you list on your registration folder, your high school counselor, and you (your counselor will receive an extra copy for you, unless you are not a high school student, in which case your copy will be sent to your home address). Your SPR contains the following: (1) your scores for the four academic tests; (2) an average of the four scores; (3) information about your experiences, your interests, and your goals; (4) a description of the individual characteristics of the colleges receiving your SPR—this information should assist you in choosing the best college for yourself; (5) a student guide which explains the information in your report.

QUESTIONS COMMONLY ASKED ABOUT THE ACT

O: WHO ADMINISTERS THE ACT?

A: The ACT is administered by the American College Testing Program. For further information about the ACT Assessment Program, write to ACTP, P.O. Box 168, Iowa City, Iowa, 52240, or call (319) 337-1000.

Q: WHAT IS THE STRUCTURE OF THE ACT ASSESSMENT?

A: The Assessment consists of four tests. The English Usage Test contains 75 items and lasts 40 minutes. The Mathematics Test contains 40 items and lasts 50 minutes. The Social Studies Reading Test contains 52 items and lasts 35 minutes. The Natural Sciences Reading Test contains 52 items and lasts 35 minutes. All four tests consist exclusively of multiple-choice questions.

Q: How is the ACT assessment scored?

A: Each of the ACT tests is scored individually from 1 to 35, with the composite score being an average of the four individual test scores. This composite score is the most important factor in the acceptance decision. The maximum composite score is 35 and the minimum is 1, with an average being 20. Most ACT test-takers score between 15 and 25.

Q: How do colleges use the information on my SPR?

A: Most colleges use the information on your Student Profile Report in two ways: (1) as part of the admission process, to assess your ability to do college-level work; (2) to help you plan your program of study.

Q: MAY I TAKE THE ACT MORE THAN ONCE?

A: Yes, you may. But if you retake the tests, you must complete all four pages of your registration folder once again. Taking the test more than once is not recommended.

Q: WHAT MATERIALS MAY I BRING TO THE ACT?

A: You may bring your test center admission form, fully completed; three sharpened No. 2 pencils; a good eraser; positive identification; and a watch. NO books, notes, slide rules, or calculators are permitted. Scratch paper for your figuring will be provided in the test booklet itself.

Q: MAY I CANCEL MY SCORE?

A: Yes. You may do so by notifying your test supervisor before you leave the examination.

Q: SHOULD I GUESS?

A: Yes. There is no penalty for guessing, so it is to your advantage to answer every question.

Q: How should I PREPARE FOR THE ACT?

A: Understanding and practicing test-taking strategies will help a great deal. Subject-matter review is particularly useful for the mathematics, social studies, and natural science sections. Both subject matter and strategies are covered in this book.

Q: HOW AND WHEN SHOULD I REGISTER?

A: The registration period opens about ten weeks before the test date and closes about four weeks before the test date. To register within this period, obtain an ACT registration/information booklet from your high school counselor, and follow the registration instruction it includes. Within three weeks after your registration folder has been received by ACTP, you will receive a test center admission form.

Q: How often is the test given?

A: The test is given five times a year, in October, December, February, April, and June. The test is regularly administered on a Saturday morning.

WG books, sotes, slide rules, or calculators are permitted. Scratch caper for

TAKING THE ACT: TWO SUCCESSFUL OVERALL APPROACHES

I. The "Plus-Minus" System

Many who take the ACT don't get their best possible score because they spend too much time on difficult questions, leaving insufficient time to answer the easy questions. Don't let this happen to you. Since every question within each section is worth the same amount, use the following system, marking on your answer sheet:

- 1. Answer easy questions immediately.
- 2. Place a "+" next to any problem that seems solvable but is too time-consuming.
- 3. Place a "-" next to any problem that seems impossible. Act quickly; don't waste time deciding whether a problem is a "+" or a "-".

After working all the problems you can do immediately, go back and work your "+" problems. If you finish them, try your "-" problems (sometimes when you come back to a problem that seemed impossible you will suddenly realize how to solve it).

Your answer sheet should look something like this after you finish working your easy questions:

Make sure to erase your "+" and "-" marks before your time is up. The scoring machine may count extraneous marks as wrong answers.

II. The Elimination Strategy

Take advantage of being allowed to mark in your testing booklet. As you eliminate an answer choice from consideration, make sure to mark it out in your question booklet as follows:

(A)?(B)

LEY

(D)

?(E)

Notice that some choices are marked with question marks, signifying that they may be possible answers. This technique will help you avoid reconsidering those choices you have already eliminated and will help you narrow down your possible answers.

Many who take the ACT don't get their best possible scene because they spend too, much time on difficult questions, leaving insufficient time to

After working all the problems you can do immediately, go back and work

These marks in your testing booklet do not need to be erased.

Part II: Analysis of Exam Areas

This section is designed to introduce you to each ACT area by carefully reviewing the—

- 1. Ability Tested
- 2. Basic Skills Necessary
- 3. Directions
- 4. Analysis of Directions
- 5. Suggested Approaches with Samples

This section emphasizes important test-taking techniques and strategies and how to apply them to a variety of problem types.