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ARTICULATION OF HIGH SCHOOL BOOKKEEPING AND  
COLLEGE ELEMENTARY ACCOUNTING

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ARTICULATION OF HIGH SCHOOL BOOKKEEPING AND  
COLLEGE ELEMENTARY ACCOUNTING

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ARTICULATION OF HIGH SCHOOL BOOKKEEPING  
AND COLLEGE ELEMENTARY ACCOUNTING

CHAPTER I

THE PROBLEM

In 1881, Joseph Wharton founded the first collegiate school of business. In outlining the subjects to be taught, he specified that an individual should be employed as a professor or instructor of accounting or bookkeeping, in particular

. . . to teach the simplest and most practical forms of bookkeeping for housekeepers, for private individuals, for commercial and banking firms, for manufacturing establishments, and for banks; also the modes of keeping accounts for executors, trustees, by the officials of town and cities, as well as by the several departments of a State or National Government; also, the routine of business between a bank and a customer.<sup>1</sup>

Much of the bookkeeping and accounting about which Wharton was concerned has been taught in high school bookkeeping classes for many years. Similar content is being taught, with more sophisticated methods and somewhat higher academic standards, in college elementary accounting classes.

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<sup>1</sup>Agreement between Joseph Wharton and the Trustees of the University of Pennsylvania, June 22, 1881, p. 11.

In the early years, the textbooks with which the college elementary accounting was taught were the same as those used in the high schools. Retarded because of a lack of textbooks, accounting at the college level was slow in developing and did not become firmly established until the 1920's.<sup>1</sup> Since that time, elementary accounting textbooks designed for college level have been published. The textbooks, however, are similar in content to bookkeeping and accounting textbooks in use in the high schools.<sup>2</sup>

The number of high school students who enroll in college has consistently increased since the 1920's. Similarly, the number of high school bookkeeping students who enroll in college elementary accounting has increased. The increasing number of people who study the same or similar content at the two educational levels gives emphasis to the need to resolve what has become an important problem of articulation: the relationship of high school bookkeeping and college elementary accounting in terms of current circumstances. As stated by McKee Fisk:

It seems evident that the day has long passed when each level of education could consider itself independent of those preceding and following it. It is educationally, economically, psychologically, and socially

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<sup>1</sup>The American Accounting Association, Accounting Teachers' Guide (Cincinnati: South-Western Publishing Co., 1953), p. 9.

<sup>2</sup>Carl J. Folkerts, "Should Students Who Have Taken High School Bookkeeping Be Required to Take Elementary Accounting?" Balance Sheet. XXV (March, 1944), pp. 306, 336.

unwarranted for students who have had work in junior high school to be required to start over or repeat work in the high school. Similarly, it is indefensible for students to be required to repeat work undertaken in high school when and if they enroll in junior college or postsecondary institutions. The same statement can be applied to colleges and universities who accept<sup>1</sup> students directly from high school or junior college.

Important elements which should be researched are the nature, scope, and extent of the duplication of efforts in high school bookkeeping and college elementary accounting. The literature presents divergent views with regard to these elements.

Research reveals that in a small minority of institutions recognition is given to the study of bookkeeping in high school as students are assigned to college elementary accounting courses. It appears, therefore, that the majority of accounting educators support the argument that there is not enough overlap and duplication to require changes in enrollment practices. However, there are many high school and college teachers who contend that the overlap and duplication is of such significance that some changes should be made.

Studies have been made to determine the desirability and need for curriculum and instructional change in both bookkeeping and accounting. These studies have accumulated data concerning: (1) the student assignment policies of

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<sup>1</sup>Frank W. Lanham, (ed.), Business Education Meets the Challenge of Change, Fourth Yearbook of the National Business Education Association (Washington: National Business Education Association, 1966), p. 207.

postsecondary schools and departments of accounting, (2) the opinions of accounting and bookkeeping teachers regarding accounting, (3) the amount of content overlap and duplication between high school bookkeeping and college elementary accounting textbooks, and (4) the achievement of students in college elementary accounting. The research data accurately describe the circumstances in which bookkeeping and accounting are offered. They reveal much about the status of instruction and of student achievement. Collectively, the studies accentuate the need for better articulation. They do not, however, present objectively determined and statistically valid evidence that can be used in dealing with the problem of articulation.

A basic element of the problem of articulation which has not been submitted to extensive classroom experimentation is the effectiveness of prior study of bookkeeping on student achievement in college elementary accounting. Research has revealed that such study does give the student an advantage in college elementary accounting. The research, however, does not reveal the degree of the advantage. A determination of the degree of the advantage should contribute evidence which can be used in solving the problem of designing curriculums to meet the needs of the greatest number of students. Such a determination should also encourage high school bookkeeping teachers as well as college and university accounting teachers

to reexamine the relationship of their respective courses in light of current circumstances.

#### Statement of the Problem

The problem of this study was to compare the achievement in college elementary accounting of those students who had studied high school bookkeeping with the achievement of those who had not. The major aspect of the problem was to determine whether college elementary accounting could be successfully completed in fewer instructional periods by students with previous experience in high school bookkeeping than by students with no prior experience.

#### Limitations

The classroom experimental investigation was conducted at Central State College, Edmond, Oklahoma. Certain characteristics of the student body, the teaching assignment policies, and the accounting instructional pattern limit the applicability of the findings in the investigation. Furthermore, the findings apply only to the groups tested.

#### Definitions

For the purposes of this study the following operational definitions were used:

Bookkeeping is ". . . the procedure of analyzing, classifying, and recording transactions with a preconceived plan, for the purpose of (a) providing a means by which an

enterprise may be conducted in an orderly fashion, and (b) establishing a basis for reporting financial condition of the enterprise and the results of its operation."<sup>1</sup>

Accounting is ". . . the art of recording, classifying, and summarizing in a significant manner and in terms of money, transactions and events which are, in part at least, of a financial character, and interpreting the results thereof."<sup>2</sup>

High school bookkeeping is the two-semester course commonly offered in senior high school.

College elementary accounting is the one-semester course commonly offered in colleges and universities.

Accounting examination is the 75-question, multiple-choice examination developed by the writer to measure student achievement in college elementary accounting.

Group I is the identification given to the 20 students who were randomly selected to form the first semester experimental group. These students had successfully completed at least one year of high school bookkeeping. The students received five class periods of instruction per week in an 18-week offering.

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<sup>1</sup>Erlic L. Kohler, (ed.) A Dictionary for Accountants (Englewood Cliffs: Prentice Hall, Inc., 1963), p. 70.

<sup>2</sup>American Institute of Accountants, Review and Resume I (New York: American Institute of Accountants, 1953), p. 9.

Group II is the identification given to the 20 students who were randomly selected to form the first semester control group. These students had not studied high school bookkeeping or college-level accounting. The students received five class periods of instruction per week in an 18-week offering.

Group III is the identification given to the 20 students who were randomly selected to form the second semester experimental group. These students had successfully completed at least one year of high school bookkeeping. The students received three class periods of instruction in an 18-week offering.

#### Sources of Data

The data for this study were obtained from: (1) the published and unpublished materials relating to articulation of high school bookkeeping and college accounting, (2) the published and unpublished research projects dealing with the achievement of students in college elementary accounting, and (3) the classroom experimental investigations in college elementary accounting conducted at Central State College during the 1966-67 school year.

#### Procedure

The research reported in subsequent chapters was conducted in three related, yet separate, phases. An

understanding of the intent of each phase of the research sequence will expedite the study of it.

The first phase involved a search of relevant literature to determine the extent of the documented need for better articulated programs of high school bookkeeping and elementary accounting at the college level. The objects of this search included material on college and university placement policies in accounting and reports focusing on recommendations for changing curriculum and instructional patterns in accounting.

In the second phase of the research, a carefully planned classroom experiment was conducted to determine whether prior experience in high school bookkeeping has favorable effects on student performance in college elementary accounting. A matched group of students without high school bookkeeping was employed as a control group to allow a meaningful base for comparison. The null hypothesis of primary concern was that: There is no significant difference between the achievement in college elementary accounting of those students who have studied high school bookkeeping and those who have not.

The third phase of the research, which was contingent upon a rejection of the foregoing null hypothesis, was conducted to determine the degree of the advantage possessed by a student who has completed high school bookkeeping. Emphasis was placed on the amount of instructional time devoted to

college elementary accounting. Matched groups of students who had completed high school bookkeeping were employed as the control and experimental groups. The null hypothesis of primary concern was: For students who have completed high school bookkeeping there is no significant difference between their achievement whether they receive three or five class periods of instruction per week in the 18-week offering in college-elementary accounting.

## CHAPTER II

### REVIEW OF LITERATURE

An exhaustive search by the author revealed that numerous research studies relating to the desirability and need for curriculum and instructional change in both bookkeeping and accounting have been made. The reports of the investigations indicate much about the content of the textbooks used in bookkeeping and accounting. The opinions of bookkeeping and accounting teachers regarding the value of high school bookkeeping to the student of college elementary accounting have been reviewed. The achievement of students enrolled in bookkeeping and accounting has been compared. Also, the policies under which students are enrolled in college elementary accounting have been studied. It is apparent that few changes have been made in curriculum and instruction as a result of these studies. The primary reason for the absence of change has not been determined. However, the fact that the studies have not presented objectively determined and statistically valid evidence that can be used in dealing with the problem of articulation is undoubtedly one reason for the absence of change.

It should be noted that, while actual research in the areas of curriculum and instruction has been voluminous, informal writing relative to the need for changes has been even more voluminous. During the last 30 years, the journals of the accounting and education professions have devoted much space to articles concerning bookkeeping and accounting. A review of these periodical articles revealed many of the bookkeeping and accounting teachers' opinions regarding the value of high school bookkeeping to the college elementary accounting student.

To provide background for this research investigation, certain research studies and periodical articles which seemed to be pertinent to the problem were selected for consideration. The research studies and periodical articles which the investigator was able to find supported the contention that more and better articulation is needed. All of the studies and periodical articles were completed and reported after 1944. This, in some measure, verifies the point of view that the duplication of efforts in high school bookkeeping and college elementary accounting is a current issue in education.

An analysis was made of the reports on the practices in the enrollment of students in college elementary accounting in institutions of higher learning. Consideration was also given to the scope of the reasoning behind recommendations for changing curriculums to overcome the problem of

overlapping and duplication between high school bookkeeping and college elementary accounting.

### Articulation of Bookkeeping and Accounting

In many colleges and universities, changes are needed in student placement for students who are enrolling in accounting. More and better articulation between high school bookkeeping and college accounting would, in part, satisfy the needs of high school bookkeeping students who later study college accounting.

In 1954, Null<sup>1</sup> completed a survey of 29 colleges and universities to determine the practices and trends in accounting education at the collegiate level. Of importance to this study, the survey revealed that none of the colleges and universities had specific plans whereby advanced standing or credit was granted to accounting students for high school bookkeeping or for occupational experience. Only in infrequent cases were arrangements made so that a student could gain an educational advantage from his former experience in bookkeeping or accounting. As reported by Null:

The attitude which prevails in senior colleges relative to former training in bookkeeping or occupational experience is indicated by the two statements which follow:

Two years of study in high school bookkeeping with a grade of "A" in each make it possible for a student

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<sup>1</sup>Elsie La Hassa Null, "Accounting at the Collegiate Level," Unpublished Doctor's dissertation, The University of Oklahoma, 1954.

who wishes to study collegiate accounting with us to enroll in the second course in elementary accounting.

In our program, we do not recognize high school bookkeeping in terms of college credit. However, business college graduates who satisfactorily complete advanced-standing examinations may be permitted to enroll in upper level courses.<sup>1</sup>

The educators involved in the survey obviously recognized that a problem of articulation existed. However, none of the educators had attempted to develop specific student placement policies which gave recognition to the study of high school bookkeeping.

From 1954, the year of the Null study, to 1968, changes in student placement policies have been insignificant. The few changes made have not satisfied the demands for better articulation between high school bookkeeping and college accounting.

Mitchell<sup>2</sup> employed a questionnaire to determine the placement policies of 299 colleges and universities which awarded degrees in business teacher education in the United States. His study revealed that changes in student placement policies in accounting had not been significant. The report of the study also indicated that the student placement policies of schools and departments of business were not

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<sup>1</sup>Ibid., pp. 50-51.

<sup>2</sup>William Martin Mitchell, "Articulation of Selected Business Education Subjects Between Senior High Schools and Universities in the United States Awarding Business Teacher Education Degrees," Unpublished Doctor's dissertation, University of North Dakota, 1965.

consistent for all courses offered. The majority of the 299 colleges and universities included in the study provided placement in shorthand and typewriting. However, only a small number of these same colleges and universities made any provision for giving recognition to the study of high school bookkeeping when students were assigned to college accounting courses. As reported by Mitchell:

The majority provide placement in shorthand and typewriting for the student who has completed shorthand and typewriting in high school.

Only twenty-one percent of the institutions provided placement in college accounting for those students who had completed high school bookkeeping.<sup>1</sup>

Approximately one-half of the schools placed students by examination and one-half placed students by the number of semesters completed in high school. Among those few schools with established student placement policies, there was no general agreement as to the best method for placing students.

There is research evidence that some recognition has been given to the need for more and better articulation between high school and college offerings in business subjects. Student placement policies of collegiate schools and departments of business are not, however, consistent for all courses offered. The lack of consistency has led to confusion at both the high school and college level. The student who has completed a high school course, similar in content to the

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<sup>1</sup>Ibid., pp. 205, 215.

college level course, is required to repeat much that he has already learned. The student who has not completed such a course is required to compete with the student who has prior knowledge of course content. The difference in the backgrounds of the students enrolled in the college level course makes it difficult for the instructor to design the course so that both groups of students are able to achieve at the highest possible level.

Plymire reported that the college curriculum is becoming more and more crowded with liberal education requirements, creating a problem in curriculum planning in the schools and departments of business that offer four-year accounting programs.<sup>1</sup> In discussing this problem, Plymire stated that:

High school offerings of accounting would alleviate some of the pressure on the college business curriculum just as high school typewriting has made many college typewriting courses unnecessary.<sup>2</sup>

It is interesting to note that the report of a committee that studied the scope of four-year accounting programs includes a statement to the effect that accounting education is in a state of transition. In the opinion of this committee, the future changes in programs would result in orderly and logical evolution within the traditional framework of the

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<sup>1</sup>B. G. Plymire, "College Accounting for High School," Balance Sheet, XLV (February, 1964), p. 259.

<sup>2</sup>Ibid., pp. 259-260.

four-year undergraduate major by: (1) a reduction in total undergraduate hours in accounting, (2) an increase in the number of hours in business, and (3) an increase in the quality of liberal arts courses. The committee believed that there would be a trend toward five-year accounting programs. They did not, however, anticipate that such programs would eliminate the need for four-year undergraduate accounting programs.<sup>1</sup> As the total undergraduate hours in accounting are reduced, more and better articulation between high school bookkeeping and college accounting would aid the four-year colleges in more fully preparing accounting majors.

In summary, the research and literature indicate that the placement policies of numerous colleges and university schools and departments of business do not meet the needs of many students. Too, the placement policies are not consistent for all courses offered. Many give recognition to high school shorthand and typewriting, while few give recognition to high school bookkeeping when placing students in college-level courses. The need to change the student placement policies for accounting is supported by evidence indicating a decrease in the total college undergraduate hours in accounting. The need for change is also supported by evidence indicating that the student of high school bookkeeping is

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<sup>1</sup>Report of the Commission on Scope of Four-Year Accounting Major: "Trends in Undergraduate Accounting Education," Accounting Review, XXXV (April, 1960).

required to repeat much that he has already learned when he studies college elementary accounting. It seems apparent that more and better articulation between high school bookkeeping and college accounting is desirable.

### Comparative Achievement in Accounting

Falkerts argues that accounting students who have previously taken bookkeeping should not be placed in classes with those who have no background of bookkeeping. He indicates that the content of the standard accounting textbook for college elementary accounting offers little, if anything, that the student has not covered in a good high school course in bookkeeping. Placing those students who have studied high school bookkeeping in the same class with those who have not is unfair to both groups. As stated by Falkerts:

Those who have taken bookkeeping are engaged in "busy work" and are deprived of opportunities to study other subjects in equivalent time periods. It is unfair to those who have not taken bookkeeping because they are placed at a disadvantage--other things being equal, the best grades go to those who have previously taken bookkeeping.<sup>1</sup>

This statement lends support to evidence presented earlier that the common procedure of enrolling all students in the same class in college elementary accounting without giving consideration to differences in background is unsound.

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<sup>1</sup>Carl J. Falkerts, "Should Students Who Have Taken High School Bookkeeping Be Required To Take Elementary Accounting?" Balance Sheet, XXV (March, 1944), pp. 306, 336.

Lund<sup>1</sup> analyzed and compared the content of two high school bookkeeping textbooks and two college accounting textbooks. He found that:

At least two thirds of practices and procedures received more coverage in the college textbooks than in the high school textbooks.

Approximately ninety percent of the practices and procedures found in the college textbooks received at least some mention in the high school textbooks.<sup>2</sup>

Lund's analysis and comparison emphasized that the amount of overlap and duplication of textbook content was considerable.

Barbour surveyed, by questionnaire, 117 accounting students, 108 bookkeeping teachers, and 98 accounting teachers to determine their opinions of the value of studying bookkeeping before studying accounting. She also compared the achievement of 66 accounting students who had studied bookkeeping with a matched group of 66 students who had not studied bookkeeping. The study revealed that the majority of the students and teachers believed that the study of high school bookkeeping is of value to students who take college elementary accounting. The study also demonstrated that the amount of overlapping of the content of the high school bookkeeping and college elementary accounting course is considerable. The major difference between the two offerings is that

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<sup>1</sup>Erling Lund, "High School Bookkeeping for College Accounting Based On a Comparison of Selected High School Textbooks With Selected Elementary College Accounting Textbooks," Unpublished Master's thesis, University of Washington, 1962.

<sup>2</sup>Ibid., pp. 58, 59.

they are aimed at different occupational levels. Her comparison of student achievement disclosed that students who take bookkeeping in high school make significantly higher grades in college elementary accounting than do students of equal ability who have had no prior bookkeeping.<sup>1</sup>

Larsen's<sup>2</sup> study comparing the achievement of 334 college elementary accounting students lends support to the evidence presented by Barbour. She found that the mean achievement of those who had had bookkeeping was significantly higher than the mean achievement of those who had not had bookkeeping. The college elementary accounting grades were found to be highly predictive in determining which students would later complete all of the accounting courses required for graduation.<sup>3</sup> Based on the evidence presented by Larsen, it may be concluded that high school bookkeeping is of value to the student throughout his study of accounting.

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<sup>1</sup>Edna Hollar Barbour, "The Effect Of The Study Of High School Bookkeeping Upon Achievement In Elementary College Accounting," Unpublished Doctor's dissertation, Ohio State University, 1955.

<sup>2</sup>Tora M. Larsen, "A Study Of The Student Personnel Records At East Carolina College As Related To Prediction In Elementary Accounting," Unpublished Doctor's dissertation, University of Minnesota, 1957.

<sup>3</sup>Ibid., pp. 306-311.

Theige<sup>1</sup> studied the relationship of high school bookkeeping to student success in college elementary accounting. He recommended that high school counselors should encourage enrollment in bookkeeping among those students who contemplate following a business curriculum in college. The college counselor should also find it valuable to ascertain, from records or consultation, the bookkeeping backgrounds of accounting enrollees. This is particularly true when some students must be excluded from college elementary accounting because of excessive enrollments in accounting classes.<sup>2</sup>

Howard found, in making a survey of the opinions of teachers of college accounting, that approximately 60 percent of the 60 accounting teachers responding to his questionnaire believed that the study of high school bookkeeping is advantageous for the college elementary accounting student. These instructors agreed that the study of high school bookkeeping is of substantial benefit to the student of college elementary accounting, especially during the first six to eight weeks.<sup>3</sup>

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<sup>1</sup>Jack E. Theige, "An Analysis Of The Prognostic Value Of High School Bookkeeping To Elementary College Accounting," Unpublished Master's thesis, Fresno State College (California), 1957.

<sup>2</sup>Jack E. Theige, "Prognostic Value Of High School Bookkeeping," Business Education Forum, XIII (March, 1959), p. 25.

<sup>3</sup>Alva Howard, "The Relation Of High School Bookkeeping To College Accounting," Balance Sheet, XLV (October, 1963), pp. 68-70.

Sipe recommended that consideration be given to the differences in the backgrounds of students when placing them in accounting courses. He reported that students who have studied bookkeeping and accounting in high school or elsewhere have less difficulty with college elementary accounting than do those students who have not done so. They also make higher final marks.<sup>1</sup>

Herring<sup>2</sup> surveyed the findings of all known research studies dealing with the teaching of bookkeeping and accounting that were completed before January 1, 1950. Among other things, his survey disclosed that the students who had studied high school bookkeeping made better marks in college elementary accounting than did those who had not studied high school bookkeeping.<sup>3</sup>

Lanham seemingly echoed the sentiments of many teachers of bookkeeping and accounting when he made the following statement:

There are quite a number of students who receive excellent instruction in high school bookkeeping and who do well--in fact many do much better work in college

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<sup>1</sup>J. Marvin Sipe, "Effect Of High School Bookkeeping On College Accounting," Balance Sheet, XXVII (November, 1945), p. 101.

<sup>2</sup>J. Virgil Herring, "A Synthesis And Classification Of Research In The Teaching Of Bookkeeping And Accounting," Unpublished Doctor's dissertation, Indiana University, 1950.

<sup>3</sup>J. Virgil Herring, "Research Findings Relative To Student's Achievement In Bookkeeping and Accounting." United Business Education Association Forum, VII (October, 1953), pp. 31-32.

elementary accounting than the students who have no introduction to the bookkeeping process.<sup>1</sup>

Bock brought other ideas to bear on the problem when he stated:

We are missing a bet in some of the students who turn to technical training early in their career--the high school bookkeeping student. It is possible that some of them would raise their sights beyond their original goals and go on into advanced study if we stimulated their interest.<sup>2</sup>

He recommended further that the study of bookkeeping should not be approached as an end in itself. It should be an introduction to a field which offers careers for many capable students.<sup>3</sup> Bock suggested that perhaps the most capable students are turned away from accounting careers. The student who has studied high school bookkeeping finds little challenge in the early portion of the college elementary accounting course. The student may become bothered by the repetition of previous learning experiences and, as a result, tend to miss principles and concepts that are new to him. He may, as a result of not being challenged or motivated, lose ground in comparison to other students.

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<sup>1</sup>J. S. Lanham, "Should Bookkeeping Be Taught To College Bound Students?" Business Education Forum, XII (December, 1957), pp. 7-8.

<sup>2</sup>R. S. Bock, "High School Bookkeeping: An End In Itself Or An Introduction To A Career?" Business Education Forum, XII (October, 1957), pp. 21-22.

<sup>3</sup>Ibid., pp. 21-22.

Based upon the evidence presented, the demand for curriculum and instructional change in accounting education is great. Many bookkeeping and accounting educators believe that more and better articulation between high school bookkeeping and college accounting is needed. The development of more and better articulation would, in part, solve some of the problems inherent in curriculum and instructional change.

### Summary

The evidence presented in the periodical articles and research studies reviewed shows that very little recognition is given to students' backgrounds in high school bookkeeping when they are assigned to college elementary accounting classes. The majority of the college accounting students and teachers believe that high school bookkeeping is beneficial to the college accounting student. Students who study bookkeeping in high school make significantly higher grades in college elementary accounting than do students who have not studied bookkeeping. The high school textbooks include a majority of the practices and procedures studied in college elementary accounting. The four-year undergraduate accounting program is in a state of transition. Unless some method is found to alleviate some of the course requirement pressures on the undergraduate accounting student, many college accounting programs will not fully prepare accounting majors.

No extensive classroom experiments have been conducted to compare statistically student achievement where those students who have studied high school bookkeeping and those who have not are taught in separate classes. In addition, the designs of the studies have not facilitated the determination of whether those who have completed high school bookkeeping can successfully complete college elementary accounting in fewer class periods of instruction than that required for those who have not had high school bookkeeping.

### CHAPTER III

#### DESIGN OF THE CLASSROOM EXPERIMENTAL INVESTIGATION

The purpose of this study was to accumulate data relative to student achievement upon which decisions regarding practices in the offering of accounting may be based. The study took form as an investigation that included two classroom instructional experiments. The experiments were designed to compare statistically student achievement in college elementary accounting. Specifically, the achievement of those students who have studied bookkeeping in high school and the achievement of those who have not was compared. The major aspect of the problem was to determine whether college elementary accounting could be successfully completed in fewer instructional periods by students with previous experience in high school bookkeeping than by students with no prior experience.

The methods and the procedures used in the classroom experiments are presented in this chapter. The problems encountered in developing the experimental design are incorporated in the presentation of the methods and the procedures.

### Circumstances Surrounding The Investigation

Two statistical comparisons of student achievement in college elementary accounting were completed at Central State College, Edmond, Oklahoma. In gathering the data for the comparisons, two classroom experiments were designed and completed during the 1966-67 school year.

### The College Setting

Central State College was first organized as a territorial Normal School on December 24, 1890. Since that time the nature and purpose of the institution has changed radically. On December 9, 1919, Central State College was authorized to become a four-year teachers college. Until 1939 only degrees with teaching emphases were granted. The college was then authorized to grant degrees not associated with preparation for teaching certificates. The business curricula offered now lead to bachelors' degrees with major emphases in accounting, general business, marketing, management, secretarial, and business teacher preparation. In addition, shorter, non-degree vocational programs are offered with secretarial and general business emphases.

Unusual growth problems have been experienced by Central State College since the year 1960. The full-time student enrollment has increased from approximately 4,000 in 1960 to approximately 9,000 in 1967. Included among the 9,000 students were 2,764 business majors who represented

nearly one-third of the total enrollment. In addition to the students who major in one or another of the areas of business, there are many who complete minor programs or study certain subjects in business. Most of these students either elect or are required to complete at least one course in college elementary accounting.

Sixty percent of the business students at Central State College commute from Oklahoma City. Significantly, the number of students who work full or part time is large.

#### Organization of the Experimental Classes

Central State College enrollment procedures and the number of college elementary accounting classes offered precluded the establishment of predetermined matched groups. The faculty assignment policies also prohibited the scheduling of all experimental classes during the same 18-week instructional period.

The first classroom experiment was designed to compare the achievement in college elementary accounting of students who had and had not studied high school bookkeeping. The experiment was completed during the first semester of the 1966-67 school year. During this period, ten classes of college elementary accounting were scheduled. The enrollments in two classes, one meeting at 8:30 a.m. and one meeting at 9:30 a.m., were restricted. The class meeting at 8:30 a.m. was open only to those students who had successfully completed

high school bookkeeping (Group I). The class meeting at 9:30 a.m. was open only to those students who had never before studied any bookkeeping or accounting (Group II). It was the classes identified as Groups I and II from which students included in the control group and the experimental-group were selected.

The purpose of the second classroom experiment was to compare the achievement of students, all of whom had completed high school bookkeeping. This classroom experiment was completed during the first and second semesters of the 1966-67 school year. During the second semester, eight classes of college elementary accounting were scheduled. The enrollments in two classes, one meeting at 8:30 a.m. and one meeting at 9:30 a.m., were restricted. The class meeting at 8:30 a.m. was open only to those students who had successfully completed high school bookkeeping (Group III). The class meeting at 9:30 a.m. (to be used only as a control group governing instructional procedure) was open only to those students who had never before studied high school bookkeeping or accounting. The experimental group was composed of students selected from the second semester college elementary accounting class identified as Group III. The group of students selected from the first semester class identified as Group I became the control group for this comparison.

Each student was allowed to enroll in the college elementary accounting class which he chose to attend. All

of these students made their selection without knowledge of the established enrollment restrictions. Once the student had selected one of the classes in which enrollment had been restricted, his adviser asked him if he met the requirements for entry. If the student met the requirements, his program was approved. If he did not meet the requirements, he was asked to change to another class of college elementary accounting. After the student had secured approval of his program, he obtained his class cards. The student was again asked by the professor in charge of issuing the college elementary accounting class cards if he met the requirements for entry. If the student did not meet the requirements, a class card was not issued.

#### Student Groups

Identical size groups could not be formed at the beginning of the semester. Twenty students were, therefore, randomly selected from each of the classes included in the investigation. Matched-paired groups could not be formed; therefore, an assessment and comparison of student American College Testing (ACT) program scores was completed.

#### Composition

There were 27 students enrolled in the college elementary accounting class from which the students included in Group I were selected. The enrollment in this class was restricted to those students who had previously completed high

school bookkeeping. The ACT scores were obtained for 23 of the 24 students who completed the course. Group I was formed by randomly selecting 20 students from the 23 for whom ACT scores were obtained. A table of random numbers was employed in selecting the 20 students. Group I was the first semester experimental group and the second semester control group.

Forty-seven students were enrolled in the college elementary accounting class from which the students included in Group II were selected. The enrollment in this class was restricted to those students who had no previous high school bookkeeping or accounting. The ACT scores were obtained for 25 of the 37 students who completed the course. Group II was formed by randomly selecting 20 students from the 25 for whom ACT scores were obtained. A table of random numbers was employed in selecting the 20 students. Group II was the first semester control group.

There were 48 students enrolled in the college elementary accounting class from which the students included in Group III were selected. The enrollment in this class was restricted to those students who had previously completed high school bookkeeping. The ACT scores were obtained for 29 of the 39 students who completed the course. Group III was formed by randomly selecting 20 students from the 29 for whom ACT scores were obtained. A table of random numbers was employed in selecting the 20 students. Group III was the second semester experimental group.

### Equivalency of Ability

A comparison of student ACT scores was made after the students in the groups had been selected. The ACT scores were tested, using Students t, to determine whether or not significant differences existed between the groups.

ACT scores were available for most of the students enrolled in the experimental classes. Those scores were, therefore, selected as the measure upon which to base the analysis of the equivalence of student ability. As verification of the applicability of the scores for the purposes of this study, it should be noted that the ACT program is designed to measure ". . . the ability of a student to perform those intellectual tasks he is likely to face in his college studies."<sup>1</sup> The decision to use the ACT program scores in this way is supported by research. Both Royer<sup>2</sup> and Larsen<sup>3</sup> concluded that the entrance tests taken by college students provide valuable data for predicting achievement in college elementary accounting.

The decision to eliminate age and sex as factors to be considered in determining student equivalence is based

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<sup>1</sup>ACT--Using the ACT Scores on Your Campus, (Iowa City, Iowa: American College Testing Program, Inc., 1962-63), p. 8.

<sup>2</sup>Everet J. Royer, "Selection and Use of Certain Factors Significant in Predicting Achievement of Students in First-Semester Accounting at the University of Miami," Unpublished Doctor's dissertation, University of Indiana, 1955, p. 238.

<sup>3</sup>Larsen, op. cit., pp. 306-311.

upon findings in research. Similarly, the decision to eliminate the period of time elapsing between completion of high school bookkeeping and enrollment in college elementary accounting is sustained by research. Brooks,<sup>1</sup> and Royer,<sup>2</sup> and Herring<sup>3</sup> found that age was not a significant factor in determining student achievement in college elementary accounting. Herring<sup>4</sup> and Larsen<sup>5</sup> report that sex did not cause student achievement in college elementary accounting to differ significantly. Barbour<sup>6</sup> found that the period of time elapsing between completion of high school bookkeeping and enrollment in college elementary accounting did not cause student achievement to be significantly different.

The ACT scores of Group I were compared with those of Group II and Group III. Group I was found to be equivalent to Group II and Group I was equivalent to Group III. When the scores were subjected to a test of significance, the hypotheses of equality were accepted. The verification for the acceptance is shown in Tables 1 and 2. The Students t

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<sup>1</sup>Paul A. Brooks, "A Survey to Determine the Relationships of Certain Factors to Success in Elementary Accounting at North Texas State College," Unpublished Master's thesis, 1949, p. 40.

<sup>2</sup>Royer, op. cit., p. 238.

<sup>3</sup>Herring, op. cit., pp. 31-32.

<sup>4</sup>Herring, op. cit., pp. 31-32.

<sup>5</sup>Larsen, op. cit., p. 306.

<sup>6</sup>Barbour, op. cit., pp. 221-228.

TABLE 1  
COMPARISON OF GROUP I AND GROUP II ACT SCORES

| Subject         | Group I       |                       | Group II      |                       | Students<br>t<br>Value |
|-----------------|---------------|-----------------------|---------------|-----------------------|------------------------|
|                 | Mean<br>Score | Standard<br>Deviation | Mean<br>Score | Standard<br>Deviation |                        |
| English         | 58.45         | 10.43                 | 52.15         | 16.63                 | 1.4000                 |
| Mathematics     | 20.90         | 6.43                  | 21.00         | 8.50                  | -0.0408                |
| Social Science  | 29.45         | 8.33                  | 27.95         | 10.33                 | 0.4934                 |
| Natural Science | 27.80         | 7.59                  | 29.25         | 8.41                  | -0.5576                |

n equals 20 in each case.

Students t value required to reject the null  
hypotheses:  $.05t_{38} = 2.0260$

TABLE 2  
COMPARISON OF GROUP I AND GROUP III ACT SCORES

| Subject         | Group I       |                       | Group III     |                       | Students<br>t<br>Value |
|-----------------|---------------|-----------------------|---------------|-----------------------|------------------------|
|                 | Mean<br>Score | Standard<br>Deviation | Mean<br>Score | Standard<br>Deviation |                        |
| English         | 58.45         | 10.43                 | 60.95         | 11.26                 | -0.7102                |
| Mathematics     | 20.90         | 6.43                  | 21.85         | 8.24                  | -0.3958                |
| Social Science  | 20.45         | 8.33                  | 33.95         | 7.02                  | -1.8000                |
| Natural Science | 27.80         | 7.59                  | 29.70         | 5.28                  | -0.8962                |

n equals 20 in each case.

Students t value required to reject the null  
hypotheses:  $.05t_{38} = 2.0260$

value for each of the measurements did not exceed that required to reject the null hypothesis at the .05 level of significance ( $.05 t_{38} = 2.0260$ ). It is evident that there is no significant difference in the composition of the groups. Differences in performance on the developed examination are, therefore, attributable to the variations in student background.

### Experimental Teaching Situations

The teaching situations for the two classroom instructional experiments were not significantly different. However, in the second experiment, instructional time was introduced as a variable. The two situations, therefore, are discussed separately.

#### Focus on Student Background

The students in the control group, Group II, and the experimental group, Group I, were taught in classes which met for 50-minute periods. The classes were scheduled to meet five days a week, for a theoretical 18-week semester. Time was lost during the enrollment week, the final examination week, and holidays. The classes actually met, therefore, for 80 periods.

All materials necessary for completion of the course were in the hands of every student. The materials

consisted of the textbook<sup>1</sup> and the work papers that accompany it.

During the first class period, the following activities were accomplished:

1. Routine remarks concerning attendance, textbooks, instructional materials, etc., were made.
2. A brief introduction to the need for and use of accounting data in financial institutions was given.
3. The assurance that college elementary accounting is interesting and not too difficult to learn, with proper and regular study, and concentration, was given.
4. The assignment of the reading of the first chapter and the working of the first problem was made.
5. Mention was made of the fact that there would be an examination administered during the second and third class periods. Each group was informed that a classroom investigation was being conducted.

Five class periods were consumed in studying each of the first 14 chapters of the textbook. The remaining class periods were consumed in administering three forms of an accounting examination. Three class periods (1 1/2 for the initial testing period and 1 1/2 for the second testing period) were consumed in administering the examination. The final administering was accomplished during the two hours allotted for final examination purposes.

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<sup>1</sup>W. T. Anderson, C. A. Moyer and A. R. Wyatt, Accounting: Basic Financial, Cost and Control Concepts (New York: John Wiley and Sons, Inc., 1965).

### Focus on Instructional Time

Classroom procedures for the control group, Group I, and the experimental group, Group III, were essentially the same. The students in both groups were taught in classes which met for 50-minute periods for a theoretical 18-week semester. Group I met five days a week, while Group III met three days a week. Because time was lost during the enrollment week, the final examination week, and holidays, Group I actually met for 16 weeks, or 80 periods, and Group III actually met for 16 weeks, or 48 periods.

The materials used by the students were identical to those indicated in the preceding section. The activities of the first class meeting were also identical to those indicated in the preceding section.

Five class periods were consumed by Group I and three class periods were consumed by Group III in studying each of the first 14 chapters of the textbook. The remaining class periods were consumed in administering examinations. The class periods consumed in administering the examinations were identical to those in the first classroom instructional experiment.

Deviations in the number of available class periods made it impossible for the classroom procedures to be exactly the same for both Group I and Group III. The students in

Group III observed fewer demonstration problems and were assigned fewer homework problems.

Preparation and Administration  
of Measurement Devices

There was no measurement device available that would meet the needs of this investigation. It was necessary, therefore, for the writer to develop the required examination.

A college elementary accounting examination was prepared for use in measuring student achievement. Three forms of the examination were developed. This was done so that there would be a minimum amount of transfer from one testing period to another.

The developed examination was designed to test the students' knowledge of accounting upon completion of the first course in college elementary accounting. Three hundred and six multiple-choice questions were prepared. These questions were duplicated and submitted to nine faculty members who were teaching or had recently taught college elementary accounting. Each faculty member ranked each of the 306 questions as to its difficulty (very difficult, difficult, average, easy, and very easy). The faculty members also commented on questions that seemed not to be appropriate and these were deleted. Ratings of the remaining questions were organized according to their difficulty (very difficult to very easy) and were compiled into one chart. From this chart 225 questions were selected in preparing three forms of a 75-question,

multiple-choice examination, with each form of approximately equal difficulty. The examinations are presented in the appendix.

Each student completed a different form of the examination in each of three testing periods. The testing was done at the beginning of the instructional period, at the end of the eighth week, and at the end of the 18-week instructional period.

The control groups and the experimental groups were each divided into three subgroups. The three subgroups in Group I were given a different form of the college elementary accounting examination during each of the three testing periods. A similar procedure was followed in administering the three forms of the examination to Group II and Group III.

#### Statistical Procedure

Comparison of the students' ACT scores reported earlier demonstrated that the abilities of the student groups were equivalent. Analysis of variance was, therefore, chosen as the most appropriate statistical test for comparing student achievement. The statistical test was used to determine whether achievement of the students in the experimental and the control groups differed significantly at the .05 level of significance.

Winer's<sup>1</sup> two-factor analysis of variance design for repeated measurement on one variable, examination scores, was employed. This design made possible the statistical testing of the stated null hypotheses presented in Chapter I.

Winer's design provides for the statistical testing of two additional hypotheses important to appropriate comparison of student achievement. The first of the two additional hypotheses was designed to determine whether the performance levels rose for consecutive testing periods. The null hypothesis was posed: There is no significant difference between the levels of the developed examination scores. The second of the two additional hypotheses was designed to determine whether the performance levels rose at essentially the same rate. The null hypothesis was posed: There is no interaction between the time of the test administration and the groups.

The two-factor analysis of variance design is known to be valuable in determining whether differences in student achievement are significant. The design is also known to be useful in determining the reasons for any significant difference which exists.

For all the statistical tests in this study, the observed distribution tables are presented in the appendix.

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<sup>1</sup>Winer, B. J., Statistical Principles in Experimental Design (New York: McGraw-Hill Book Company, Inc., 1962), pp. 302-318.

In addition, the analysis of variance F ratios derived are shown in Chapter IV.

### Summary

Two classroom instructional experiments were designed to compare the achievement of students in college elementary accounting. The first classroom instructional experiment placed emphasis on student background in high school bookkeeping. The second classroom instructional experiment placed emphasis on the amount of instructional time devoted to college elementary accounting. The two classroom instructional experiments were necessary in order that a determination might be made for the major aspect of the problem: to determine whether college elementary accounting can be successfully completed by students with previous experience in high school bookkeeping in fewer class periods of instruction than are required for those who have not studied bookkeeping.

In the first classroom instructional experiment, achievement of students who had studied high school bookkeeping was compared with achievement of those who had not. This experiment was designed to determine if prior high school bookkeeping might be a factor.

The second classroom instructional experiment compared the achievement of two groups of students who had completed high school bookkeeping. The experiment was designed to determine whether students with prior high school

bookkeeping could complete college elementary accounting in fewer class periods of instruction than those who had not studied bookkeeping.

## CHAPTER IV

### PRESENTATION OF THE DATA

The primary data for this study were student examination scores. The students' scores were obtained from a college elementary accounting examination. The examination was administered in two classroom instructional experiments conducted at Central State College during the fall and spring semesters of the 1966-67 school year.

As described in Chapter III, student achievement in college elementary accounting was measured through administering three forms of a college elementary accounting examination. Each student in the control and experimental groups completed the three forms of the examination. The examination was administered at the beginning of the instructional period, at the end of the eighth week, and at the end of the 18-week instructional period. The scores, as presented in the appendix, were then classified according to the captions noted in the figures and the tables that portray the observed distributions.

The designs of the two classroom instructional experiments require that the analysis of the data and the interpretation of the data be reported separately. The design of

the study and the resulting designs of the two classroom instructional experiments are presented in Chapter III. The two classroom instructional experiments, although conducted and reported separately, were related--both contributed data needed to determine whether college elementary accounting can be successfully completed by students with previous experience in high school bookkeeping in fewer class hours than are required for those who have not studied bookkeeping. The purpose of this chapter, therefore, is to present the analysis and interpretation of the data. The results of the statistical tests for each classroom instructional experiment are included.

#### Analysis of the Data

The data for this study, student scores on a college elementary accounting examination, were submitted to statistical test. Analysis of variance was employed as the statistical test. The statistical testing was necessary for each classroom instructional experiment. A determination was made of whether or not the primary null hypothesis, for each experiment, could be accepted or rejected.

The design of the two classroom instructional experiments required that the analysis for each be reported separately. The analysis of the data are, therefore, reported separately in the following sections.

Comparative Achievement In Terms  
of Student Background

The college elementary accounting examination scores of the 20 students in the experimental group, Group I, and the 20 students in the control group, Group II, were submitted to statistical test. The scores of the students in Groups I and II were found to be significantly different. The difference was significant beyond the .05 level.

Mean scores of the 20 students included in Group I were significantly higher than mean scores of the 20 students in Group II. The difference noted is shown in Figure 1 and in the appendix. Mean scores of those who had taken high school bookkeeping were initially higher, were higher at the end of the eighth week, and were higher at the end of the 18-week instructional period. Thus, as shown in Figure 1, the initial mean score of Group I was 33.00, while the initial mean score of Group II was 26.30. At the end of the eighth week, the mean score of Group I was 43.10, while the mean score of Group II was 35.20. At the end of the 18-week instructional period, the mean score of Group I was 50.70 while that of Group II was 46.20.

Winer's<sup>1</sup> two-factor design with repeated measurement on one variable was applied to the student scores achieved on the examination. Through use of this design, it was

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<sup>1</sup>Winer, op. cit., pp. 302-318.

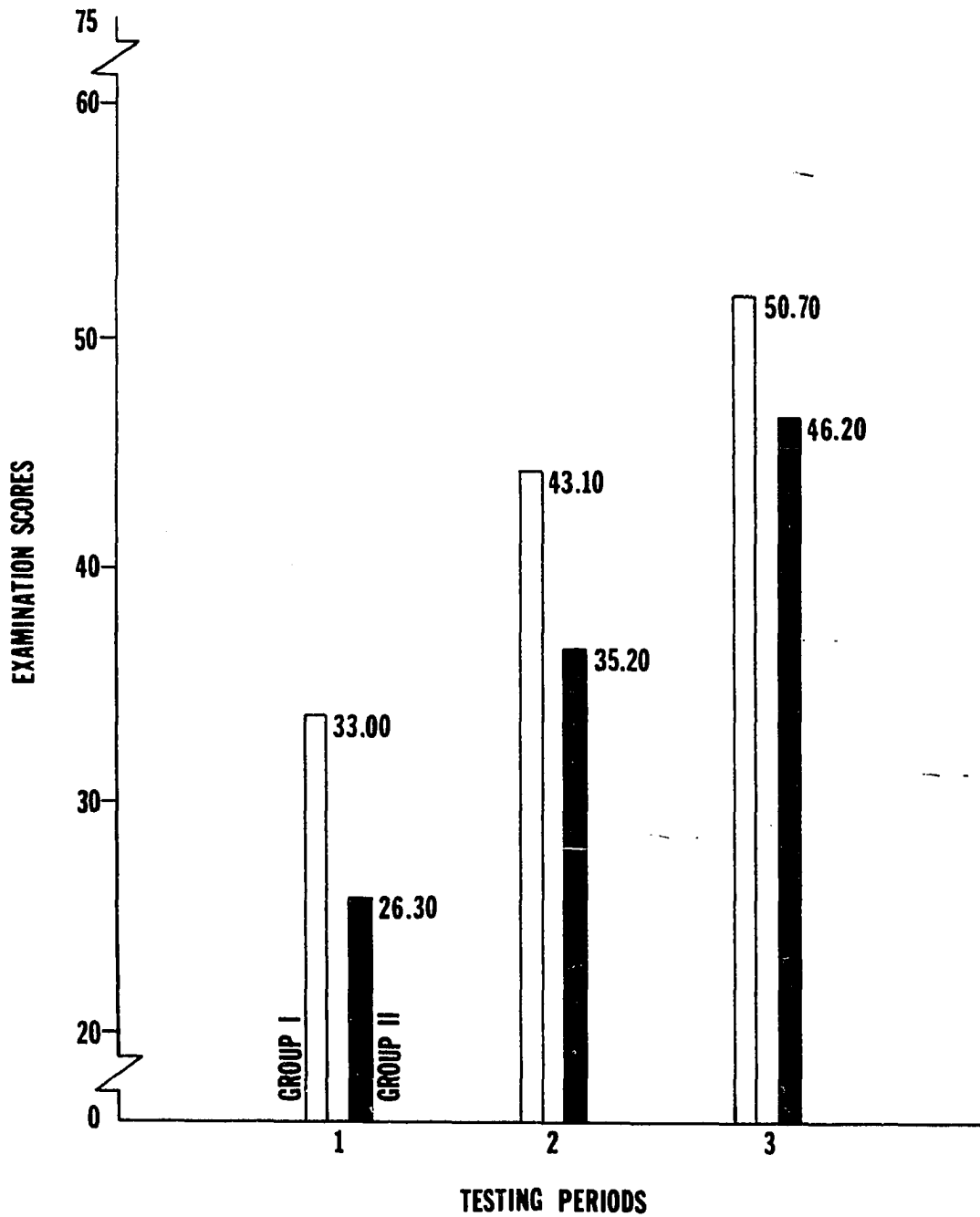


Figure 1. A graphic presentation of the mean scores of Group I and Group II on the college elementary accounting examination administered at the beginning, the middle, and the end of the 18-week instructional period.

possible to test the primary hypothesis presented in Chapter I. The stated primary null hypothesis was: There is no significant difference between the achievement in college elementary accounting of students who have studied high school bookkeeping and those who have not. A determination was made of whether or not the performance levels of the experimental and control groups rose for consecutive testing periods. A determination was also made of whether or not the performance levels for the two groups rose at essentially the same rate.

When the primary hypothesis was subjected to statistical test, it was, as shown in Table 3, rejected. The verification for the rejection is shown by an F ratio of 8.51. The determined F ratio exceeded that required for rejection of the null hypothesis at the .05 level of significance ( $.05F_{1,38} = 4.10$ ).

The hypothesis for determining whether or not the performance levels of the two groups rose for consecutive testing periods was, as shown in Table 3, rejected. The verification for the rejection of this hypothesis is similarly shown by an F ratio of 158.22. This F ratio exceeded that required for rejection of the null hypothesis at the .05 level of significance ( $.05F_{2,76} = 3.12$ ).

The hypothesis for determining whether or not the performance levels for the two groups rose at essentially the same rate was submitted to statistical test. This hypothesis was, as shown in Table 3, accepted. The verification for the

TABLE 3  
ANALYSIS OF VARIANCE  
COMPARING ACCOUNTING EXAMINATION SCORES  
OF GROUPS I AND II

| Source of Variation        | Sums of Squares | Degrees of Freedom | Mean Square | F Ratio |
|----------------------------|-----------------|--------------------|-------------|---------|
| <u>Between subjects</u>    |                 |                    |             |         |
| A (groups)                 | 1216.04         | 1                  | 1216.04     | 8.51*   |
| Subjects within groups     | 5429.13         | 38                 | 142.87      | ----    |
| <u>Within subjects</u>     |                 |                    |             |         |
| B (test periods)           | 7069.07         | 2                  | 3534.54     | 158.22* |
| AB                         | 59.46           | 2                  | 29.73       | 1.33    |
| B x subjects within groups | 1697.47         | 76                 | 22.34       | ----    |

\*The null hypothesis is rejected.

F ratios required to reject the null hypotheses:

$$.05F_{1,38} = 4.10$$

$$.05F_{2,76} = 3.12$$

acceptance is shown by an F ratio of 1.33. The F ratio did not exceed that required for rejection of the null hypothesis at the .05 level of significance ( $.05F_{2,76} = 3.12$ ).

The data for this study, student scores on a college elementary accounting examination, were submitted to statistical test. Statistical testing of the data revealed that the difference between the mean scores of Group I and Group II was significant at the .05 level.

#### Comparative Achievement in Terms of Instructional Time

The college elementary accounting examination scores of the 20 students included in the experimental group, Group III, and the 20 students included in the control group, Group I, were submitted to statistical test. The scores of the students in Groups I and III were found to be equivalent. The difference present was not significant at the .05 level.

The mean scores of the 20 students included in Group III were essentially the same as those achieved by the 20 students included in Group I. As shown in Figure 2 and in the appendix, it is evident that very little difference was present. The initial mean scores, the mean scores at the end of the eighth week, and the mean scores at the end of the 18-week instructional period were approximately the same. Thus, as shown in Figure 2, the initial mean score of Group III was 33.30, while the mean score of Group I was 33.00. At the end of the eighth week, the mean score of Group III

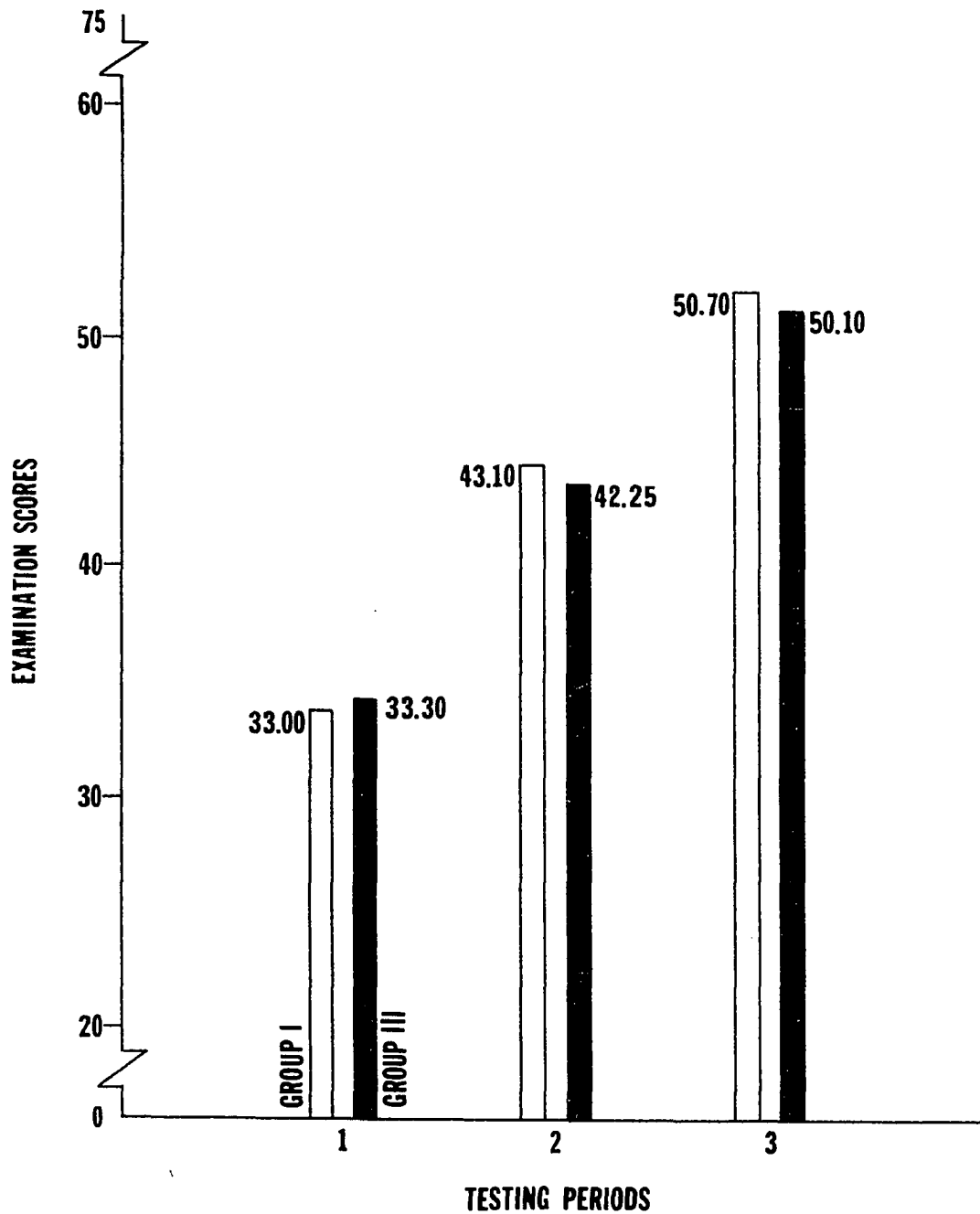


Figure 2. A graphic presentation of the mean scores of Group I and Group III on the college elementary accounting examination administered at the beginning, the middle, and the end of the 18-week instructional period.

was 42.25, while the mean score of Group I was 43.10. At the end of the 18-week instructional period, the mean score of Group III was 50.30, while the mean score of Group I was 50.70.

As was done in the preceding analysis, Winer's<sup>1</sup> two-factor design was employed to test the primary hypothesis presented in Chapter I. The stated primary null hypothesis was: For students who have completed high school bookkeeping there is no significant difference between their achievement whether they receive three or five class periods of instruction per week in the 18-week offering in college elementary accounting. Two additional determinations were made. The first determination was whether or not the performance levels of the experimental and control groups rose for consecutive testing periods. The second determination was whether or not the performance levels for the two groups rose at essentially the same rate.

When the primary hypothesis was subjected to statistical test, it was, as shown in Table 4, accepted. The verification for the acceptance is shown by an F ratio of .03. This F ratio did not exceed that required for rejection of the null hypothesis at the .05 level of significance ( $.05F_{1,38} = 4.10$ ).

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<sup>1</sup>Winer, op. cit., pp. 302-318.

TABLE 4  
ANALYSIS OF VARIANCE  
COMPARING ACCOUNTING EXAMINATION SCORES  
OF GROUPS I AND III

| Source of Variation        | Sums of Squares | Degrees of Freedom | Mean Squares | F Ratio |
|----------------------------|-----------------|--------------------|--------------|---------|
| <u>Between subjects</u>    |                 |                    |              |         |
| A (groups)                 | 4.41            | 1                  | 4.41         | .03     |
| Subjects within groups     | 6138.25         | 38                 | 161.53       | ----    |
| <u>Within subjects</u>     |                 |                    |              |         |
| B (test periods)           | 5972.85         | 2                  | 2986.43      | 126.70* |
| AB                         | 7.32            | 2                  | 3.66         | .16     |
| B x subjects within groups | 1791.09         | 76                 | 23.57        | ----    |

\*The null hypothesis is rejected.

F ratios required to reject the null hypotheses:

$$.05F_{1,38} = 4.10$$

$$.05F_{2,76} = 3.12$$

The hypothesis for determining whether or not the performance levels of the experimental and control groups rose for consecutive testing periods was, as shown in Table 4, rejected. The verification for the rejection is shown by an F ratio of 126.70. The computed F ratio exceeded that required for rejection of the null hypothesis at the .05 level of significance ( $.05F_{2,76} = 3.12$ ).

The hypothesis for determining whether or not the performance levels for the two groups rose at essentially the same rate was, as shown in Table 4, accepted. The verification for the acceptance of this hypothesis is shown by an F ratio of .16. This F ratio did not exceed that required for rejection of the null hypothesis at the .05 level of significance ( $.05F_{2,76} = 3.12$ ).

Statistical testing of the data revealed that the difference between the mean scores of Group I and Group III was not significant. The difference between student scores on the college elementary accounting examination was not significant at the .05 level. The statistical testing also revealed that the difference in class hours of instruction did not contribute to the small difference which was present.

#### Interpretation of the Data

Interpretations of the analyses of the data presented in the preceding sections were made. The purpose was to develop an answer to the primary question posed for each

classroom instructional experiment. The first interpretation completed was of the analysis of the data for the first semester experiment. This was directed toward answering the question--Does high school bookkeeping make a difference in student achievement in college elementary accounting? The second interpretation completed was of the analysis of the data for the second semester experiment. This was directed toward answering the question--Can the first course in college elementary accounting be successfully completed by students with previous experience in high school bookkeeping in three class periods of instruction per week in the 18-week offering in college elementary accounting? The two interpretations are, therefore, reported separately in the following sections.

#### Comparative Achievement in Terms of Student Background

Analysis of the data accumulated in this classroom instructional experiment revealed that the study of high school bookkeeping made a difference in student achievement in college elementary accounting. The difference between the achievement of those students who had studied high school bookkeeping and of those students who had not did not occur by chance. The difference was statistically significant beyond the .05 level.

The findings showed that there was a difference between the performance of the two groups and the difference

did not occur by chance. The rejection of the primary hypothesis confirmed that the difference, as evidenced by the mean scores on the examination, was significant. As presented in Figure 1, the initial difference between the mean scores for Groups I and II was 8.08 points. At the end of the eighth week the difference between group mean scores was 7.90 points. At the end of the 18-week instructional period the difference between group mean scores was 3.50 points. At each successive testing period the experimental group mean scores were higher than those of the control group.

The analysis of the data disclosed that the performance levels for the two groups rose for each consecutive testing period. The rejection of the hypothesis that there was no significant difference between the levels of the accounting examination scores demonstrated that the increase was significant. The performance levels of the two groups, as evidenced by the mean scores on the examinations, were increased from the first test to the second test and from the second test to the third test. Figure 1 shows that the mean score of Group I at the end of the eighth week was 10.10 points higher and that the mean score of Group II was 8.90 points higher than their respective initial mean scores. From the end of the eighth week to the end of the 18-week instructional period the mean score of Group I increased by 7.60 points and the mean score of Group II increased by

11.00 points. Both the experimental and the control groups' performance levels were increased for each consecutive testing period.

The acceptance of the hypothesis that there was no interaction confirmed that the performance levels for the two groups rose at essentially the same rate. The rate of increase in performance levels for the two groups was not significantly different. The time of the test administration did not cause group scores to be mismatched. As presented in Figure 1, from the initial testing period to the end of the eighth week, the difference between the rate of increase of Group I and II was 1.20 points. From the end of the eighth week to the end of the 18-week instructional period, the difference between the rate of increase of Group I and II was 3.40 points. The difference between examination scores at the beginning, the middle, and the end of the 18-week instructional period was maintained at essentially the same interval.

The difference between the college elementary accounting examination scores of Group I and Group II was found to be significant. The college elementary accounting examination scores of the experimental group, Group I, were significantly higher than those the control group, Group II.

### Comparative Achievement in Terms of Instructional Time

The difference in classroom instructional time did not contribute to differences in the performance of students who had had previous high school bookkeeping. This was revealed by the analysis of the data accumulated in this classroom instructional experiment. The difference in achievement was not found to be significant at the .05 level.

The difference between the performance of the two groups was not significant. This was corroborated by the acceptance of the primary hypothesis posed for this classroom instructional experiment. Students who had completed high school bookkeeping scored equally well in college elementary accounting whether they received three or five class periods of instruction per week. As presented in Figure 2, the initial difference between the mean scores for Groups I and III was .30 of a point. At the end of the eighth week the difference between group mean scores was .85 of a point. At the end of the 18-week instructional period the difference between group mean scores was .40 of a point. The performance of the two groups, Group I and Group III, was not significantly different, therefore, the small difference present is attributed to chance fluctuation.

The performance levels for both Group I and Group III were significantly increased. As evidenced by the mean scores on the examination, the performance levels were increased

from the first test to the second test. Similarly, the performance levels were increased from the second test to the third test. As shown in Figure 2, the mean score of Group III at the end of the eighth week was 8.95 points higher and the mean score of Group I was 10.10 points higher than their respective initial mean scores. From the end of the eighth week to the end of the 18-week instructional period the mean score of Group III increased 8.05 points and the mean score of Group I increased 7.60 points. Therefore, based on the available evidence, the performance levels for the two groups were significantly increased.

The performance levels for the two groups rose at essentially the same rate. The acceptance of the null hypothesis posed for this determination indicated that the difference in the rate of increase was not significant. The difference between examination scores at the beginning, the middle, and the end of the 18-week instructional period was maintained at essentially the same interval. As presented in Figure 2, from the initial testing period to the end of the eighth week, the difference in the rate of increase in achievement between Group I and Group III was 1.15 points. From the end of the eighth week to the end of the 18-week instructional period, the difference between the rate of increase of Group I and Group III was .45 of a point. The change in interval was not found to be significant; therefore, it is attributed to chance fluctuation.

The difference between the college elementary accounting examination scores of Group III and Group I was not statistically significant beyond the .05 level. The college elementary accounting examination scores of the experimental group, Group III, were found to be equivalent to those of the control group, Group I. The analysis demonstrated that the small difference between the scores of the two groups occurred by chance. The difference between the number of class periods of instruction did not affect student achievement.

## CHAPTER V

### SUMMARY

The problem of this study was to compare the achievement in college accounting of those students who have studied high school bookkeeping and those who have not. The major aspect of the problem was to determine whether the first course in college accounting could be successfully completed in fewer instructional periods by students with prior experience in high school bookkeeping than by those who have no prior experience.

The procedural attack upon the problem was divided into three steps. First, a review of the selected research studies and periodical articles was made to determine the kinds and extent of published evidence attesting to the desirability and need for curriculum and instructional change. Second, a classroom instructional experiment was designed and implemented to compare the achievement of those students who have studied high school bookkeeping and those who have not. The purpose of the comparison was to test the merit of the contention that those students who have studied high school bookkeeping achieve at a significantly higher level than do those students who have not studied bookkeeping. The null

hypothesis posed for this experiment was--there is no significant difference between the achievement in college elementary accounting of those students who have studied high school bookkeeping and those who have not. Third, a classroom experiment was designed and implemented to compare the achievement of students who have studied high school bookkeeping. The purpose of this comparison was to determine whether or not the student who has studied high school bookkeeping can complete college elementary accounting in fewer class hours than is required for the student who has not studied high school bookkeeping. The null hypothesis posed for this experiment was--for students who have completed high school bookkeeping there is no significant difference between their achievement whether they receive three or five class periods of instruction per week in the 18-week offering in college elementary accounting.

#### The Classroom Experimental Investigation

This research investigation included two classroom instructional experiments designed to compare student achievement in college elementary accounting. In the first experiment, the emphasis was placed on student background. In the second experiment, the emphasis was placed on instructional time. The first classroom instructional experiment was completed during the first semester and the second was completed during the first and second semesters of the 1966-67 school

year. During each semester, two classes of college elementary accounting were offered at prime morning hours. The investigator taught each of these classes.

The effect of different backgrounds upon student achievement was determined in the first semester classroom experiment. This was accomplished through comparing examination scores of the students included in the experimental group, Group I, with those of the students included in the control group, Group II.

The effect of a different number of class periods of instruction upon achievement was determined in the second experiment. The determination was made through comparing examination scores of the students included in the experimental group, Group III, with those of the students included in the control group, Group I.

For each of the semesters, teaching procedures for the classes were essentially identical. However, in the second semester, Group III observed fewer demonstration problems and was assigned fewer problems to be worked outside class time. Three forms of a multiple-choice examination of seventy-five questions each were developed and administered to all groups at appropriate intervals. The scores on this examination were used as measures of achievement.

The students included in the experimental and control groups were selected from three college elementary accounting classes offered during the 1966-67 school year. Twenty

students were randomly selected from each of the three classes. After the groups had been formed, a comparison of student ACT scores was made. The ACT scores were tested to determine whether or not significant differences existed between the groups. Students t test of significance was employed to determine whether or not the ACT scores for Group I compared with those of Group II and the ACT scores of Group I compared with those of Group III were equivalent. No significant difference was found between the ACT mathematics, English, social science, and natural science scores for any of the comparisons. Essential equivalence was thus deemed to be satisfactorily established.

#### Findings

For each classroom instructional experiment, comparisons were made of student examination scores. These scores were submitted to statistical test. The statistical test employed was analysis of variance. A two-factor design with repeated measurement on one variable was used.

When the scores of Group I and II were submitted to statistical test, they were found to be significantly different at the .05 level. The analysis of variance test disclosed that this difference was attributable to the difference between student background in high school bookkeeping.

The examination scores of Group I and III were submitted to statistical test. These scores were found to be

equivalent. The null hypothesis of no difference at the .05 level of significance was accepted. The analysis of variance test revealed that the small difference between examination scores was due to chance fluctuation.

Expanded interpretations can be drawn from the classroom investigation findings. First, dividing college elementary accounting students into groups based upon their background in high school bookkeeping did lead to superior achievement of those who had studied high school bookkeeping. The group of students who had studied high school bookkeeping began the course with a greater understanding of accounting. They also possessed a greater understanding at the end of the 18-week semester than the understanding possessed by the students who had not studied bookkeeping. Second, the students who had previously studied high school bookkeeping achieved at approximately the same level whether they received classroom instruction for three or five days per week. This indicates that those students who have studied high school bookkeeping can satisfactorily complete the college elementary accounting course in fewer class hours than that now required by some institutions of higher learning.

#### Concluding Statements

The findings based solely on the groups tested confirm the assertion that there is a significant difference between the achievement in college elementary accounting of

students who have studied high school bookkeeping and those who have not. Accepting the accounting examination employed in this study as a valid and reliable instrument for measuring accounting knowledge, and assuming that the population included in this study is fairly typical, it appears that students who have studied high school bookkeeping generally are possessed of significantly greater knowledge of accounting than are those who have not studied high school bookkeeping. College students who have studied bookkeeping can usually be expected to start their college course in accounting with an advantage over students who have had no previous bookkeeping. They can also be expected to finish with somewhat greater knowledge of accounting. Regardless of previous training or lack of training, however, the college elementary accounting course will significantly improve the students' knowledge and understanding of the subject. The greatest progress will be made by those who have had no previous bookkeeping, while the least will be made by those previously exposed to bookkeeping. In other words, the college elementary accounting course will tend to eliminate some of the difference initially prevailing between the groups.

The findings also confirm the assertion that the student who has studied bookkeeping can successfully complete college elementary accounting in substantially less time than that required for those who have not studied it. Based upon the evidence presented in this study, it appears that students

who have studied bookkeeping generally are able to understand more easily and more quickly grasp accounting than are those who have not studied bookkeeping. The student who has studied high school bookkeeping can usually be expected to achieve at a significantly higher level than that of the student who has not studied bookkeeping. This is so whether the student receives three or five days of instruction per week during the 18-week semester. It appears that when students with different backgrounds in bookkeeping are taught in the same class both groups are placed at a disadvantage. Those who have studied bookkeeping are required to repeat much that they have already learned. Those who have not studied bookkeeping generally receive lower grades than do those who have studied bookkeeping.

Confirmation of the assertions suggests that colleges should consider establishing separate classes of college elementary accounting for students who have studied high school bookkeeping. Students in these special classes might be taught in a more sophisticated manner than those who have not studied bookkeeping. The procedure for assigning students to these special classes should not be based solely on the fact that certain students have studied high school bookkeeping. Noting that some students who had studied high school bookkeeping achieved lower scores than some who had never had high school bookkeeping, it is suggested that a test of accounting understandings be developed and administered to

college students at the beginning of their college course. The results of the test could then be used to identify those students who are to be assigned to special classes.

This investigation disclosed that the study of high school bookkeeping is worthwhile background for the student of college elementary accounting. This investigation further showed that for such high school graduates special classes in college elementary accounting should be made available.

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## APPENDIX

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| American College Test Scores . . . . .      | 76-78   |
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## ACT RAW SCORES

## GROUP I

| Student | English | Mathematics | Social<br>Science | Natural<br>Science |
|---------|---------|-------------|-------------------|--------------------|
| 1       | 60      | 19          | 38                | 31                 |
| 2       | 38      | 12          | 16                | 22                 |
| 3       | 45      | 20          | 19                | 17                 |
| 4       | 40      | 29          | 31                | 23                 |
| 5       | 60      | 16          | 26                | 24                 |
| 6       | 69      | 29          | 32                | 29                 |
| 7       | 62      | 14          | 31                | 43                 |
| 8       | 73      | 33          | 39                | 33                 |
| 9       | 57      | 34          | 31                | 34                 |
| 10      | 42      | 14          | 23                | 23                 |
| 11      | 62      | 29          | 32                | 33                 |
| 12      | 57      | 14          | 32                | 29                 |
| 13      | 71      | 19          | 42                | 35                 |
| 14      | 45      | 16          | 21                | 22                 |
| 15      | 69      | 23          | 49                | 41                 |
| 16      | 64      | 22          | 36                | 33                 |
| 17      | 67      | 19          | 20                | 18                 |
| 18      | 62      | 20          | 26                | 26                 |
| 19      | 64      | 16          | 23                | 27                 |
| 20      | 62      | 20          | 22                | 13                 |
| Mean    | 58.45   | 20.90       | 29.45             | 27.80              |
| Range   | 38-73   | 12-34       | 16-49             | 13-43              |

## ACT RAW SCORES

## GROUP II

| Student | English | Mathematics | Social<br>Science | Natural<br>Science |
|---------|---------|-------------|-------------------|--------------------|
| 1       | 64      | 29          | 28                | 37                 |
| 2       | 47      | 14          | 32                | 22                 |
| 3       | 67      | 19          | 34                | 34                 |
| 4       | 26      | 12          | 17                | 11                 |
| 5       | 73      | 27          | 46                | 46                 |
| 6       | 50      | 17          | 22                | 23                 |
| 7       | 57      | 20          | 26                | 32                 |
| 8       | 69      | 20          | 42                | 29                 |
| 9       | 60      | 14          | 28                | 32                 |
| 10      | 67      | 33          | 46                | 46                 |
| 11      | 57      | 19          | 18                | 23                 |
| 12      | 45      | 32          | 28                | 32                 |
| 13      | 24      | 20          | 34                | 24                 |
| 14      | 42      | 17          | 23                | 24                 |
| 15      | 42      | 10          | 13                | 22                 |
| 16      | 74      | 36          | 42                | 38                 |
| 17      | 53      | 10          | 18                | 26                 |
| 18      | 40      | 31          | 19                | 34                 |
| 19      | 15      | 08          | 11                | 21                 |
| 20      | 71      | 32          | 32                | 29                 |
| Mean    | 52.15   | 21.00       | 27.95             | 29.25              |
| Range   | 15-74   | 08-36       | 11-46             | 11-46              |

## ACT RAW SCORES

## GROUP III

| Student | English | Mathematics | Social<br>Science | Natural<br>Science |
|---------|---------|-------------|-------------------|--------------------|
| 1       | 71      | 27          | 36                | 34                 |
| 2       | 64      | 23          | 31                | 27                 |
| 3       | 57      | 32          | 34                | 33                 |
| 4       | 50      | 17          | 34                | 23                 |
| 5       | 53      | 14          | 32                | 26                 |
| 6       | 69      | 24          | 39                | 37                 |
| 7       | 62      | 24          | 34                | 34                 |
| 8       | 67      | 22          | 26                | 24                 |
| 9       | 67      | 27          | 39                | 38                 |
| 10      | 54      | 23          | 34                | 31                 |
| 11      | 45      | 22          | 31                | 28                 |
| 12      | 73      | 32          | 46                | 32                 |
| 13      | 76      | 24          | 42                | 27                 |
| 14      | 74      | 34          | 36                | 33                 |
| 15      | 57      | 12          | 21                | 31                 |
| 16      | 38      | 23          | 26                | 24                 |
| 17      | 71      | 32          | 49                | 40                 |
| 18      | 64      | 16          | 36                | 26                 |
| 19      | 38      | 07          | 21                | 20                 |
| 20      | 69      | 02          | 32                | 26                 |
| Mean    | 60.95   | 21.85       | 33.95             | 29.70              |
| Range   | 38-76   | 02-34       | 21-49             | 20-40              |

## ACCOUNTING EXAMINATION RAW SCORES

## GROUP I

| Student | Testing Periods |             |                 |
|---------|-----------------|-------------|-----------------|
|         | First Week      | Eighth Week | Eighteenth Week |
| 1       | 39              | 50          | 50              |
| 2       | 16              | 28          | 33              |
| 3       | 31              | 43          | 48              |
| 4       | 37              | 38          | 51              |
| 5       | 28              | 35          | 48              |
| 6       | 46              | 46          | 47              |
| 7       | 41              | 49          | 59              |
| 8       | 47              | 54          | 62              |
| 9       | 36              | 48          | 59              |
| 10      | 31              | 42          | 52              |
| 11      | 41              | 47          | 52              |
| 12      | 37              | 44          | 56              |
| 13      | 23              | 46          | 55              |
| 14      | 21              | 31          | 38              |
| 15      | 37              | 52          | 57              |
| 16      | 31              | 42          | 50              |
| 17      | 26              | 39          | 53              |
| 18      | 26              | 50          | 55              |
| 19      | 32              | 40          | 44              |
| 20      | 34              | 38          | 45              |
| Mean    | 33.00           | 43.10       | 50.70           |
| Range   | 16-47           | 28-54       | 33-62           |

## ACCOUNTING EXAMINATION RAW SCORES

## GROUP II

| Student | Testing Periods |             |                 |
|---------|-----------------|-------------|-----------------|
|         | First Week      | Eighth Week | Eighteenth Week |
| 1       | 40              | 41          | 54              |
| 2       | 22              | 26          | 48              |
| 3       | 16              | 39          | 39              |
| 4       | 31              | 32          | 38              |
| 5       | 33              | 41          | 46              |
| 6       | 22              | 33          | 47              |
| 7       | 42              | 43          | 56              |
| 8       | 33              | 33          | 47              |
| 9       | 22              | 34          | 45              |
| 10      | 29              | 45          | 60              |
| 11      | 36              | 44          | 47              |
| 12      | 26              | 35          | 55              |
| 13      | 26              | 38          | 49              |
| 14      | 21              | 33          | 40              |
| 15      | 15              | 21          | 26              |
| 16      | 28              | 41          | 64              |
| 17      | 27              | 31          | 31              |
| 18      | 24              | 35          | 53              |
| 19      | 13              | 24          | 27              |
| 20      | 20              | 35          | 52              |
| Mean    | 26.30           | 35.20       | 46.20           |
| Range   | 13-42           | 21-45       | 26-64           |

## ACCOUNTING EXAMINATION RAW SCORES

## GROUP III

| Student | Testing Periods |             |                 |
|---------|-----------------|-------------|-----------------|
|         | First Week      | Eighth Week | Eighteenth Week |
| 1       | 39              | 40          | 60              |
| 2       | 29              | 40          | 50              |
| 3       | 24              | 47          | 36              |
| 4       | 26              | 31          | 50              |
| 5       | 21              | 31          | 32              |
| 6       | 31              | 50          | 58              |
| 7       | 25              | 34          | 40              |
| 8       | 37              | 41          | 54              |
| 9       | 39              | 41          | 60              |
| 10      | 33              | 47          | 54              |
| 11      | 40              | 44          | 63              |
| 12      | 51              | 53          | 46              |
| 13      | 32              | 44          | 46              |
| 14      | 45              | 52          | 53              |
| 15      | 39              | 46          | 49              |
| 16      | 26              | 42          | 49              |
| 17      | 54              | 64          | 61              |
| 18      | 25              | 38          | 54              |
| 19      | 22              | 29          | 33              |
| 20      | 28              | 31          | 50              |
| Mean    | 33.30           | 42.25       | 50.10           |
| Range   | 21-54           | 29-64       | 32-63           |

## ELEMENTARY ACCOUNTING EXAMINATION\*

### General Directions

When you are told to do so, turn this page.

You must answer each question even though you are not perfectly sure that your answers are correct.

You are to mark your answers to all questions on the separate answer sheet which you have been given. Answers written in this booklet will not be counted. When you have decided upon an answer for a question, blacken the appropriate space between the dotted lines on your answer sheet. Use a number two pencil to make a heavy black line which fills the space between these dotted lines. Be careful not to make stray marks on your answer sheet. If you wish to change an answer, erase your first line completely and mark your new choice. Give only one answer to each question; if you mark more than one answer, that question will not be counted in scoring.

At the end of the testing period, enclose your answer sheet and scratch paper in this booklet.

Ask all questions before the test begins. No questions may be answered after the test has started. When you are told to do so, turn this page and proceed at once to answer the questions. Do not spend too much time on any one item.

Directions: For each statement, select the one choice which BEST completes the statement and blacken the space on the answer sheet which is beneath the number of your choice. Read each statement carefully.

Sample:

Sample Answer Sheet

|                                   |        |                   |             |        |        |
|-----------------------------------|--------|-------------------|-------------|--------|--------|
|                                   | 1      | 2                 | 3           | 4      | 5      |
| 1. Net worth equals assets minus: | 1. === | <del>2. ===</del> | 3. ===      | 4. === | 5. === |
| 1. ownership interest             |        |                   | 3. equities |        |        |
| 2. liabilities                    |        |                   | 4. capital  |        |        |

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\*This page is the cover sheet for each of the three forms of the examination that appear on the following pages.

Form 1

1. The difference between what is owned and what is owed is:
  1. value of the business
  2. net worth
  3. equities
  4. capital
2. Buying office equipment for cash may cause the total assets to be:
  1. increased
  2. decreased
  3. improved
  4. none of these
3. A decrease in expense is recorded in the appropriate account as a:
  1. debit
  2. credit
  3. increase
  4. decrease
4. If the credit side of the expense and revenue summary account is the larger side at the time it is ready to be closed, the balance is a (an):
  1. asset
  2. net gain
  3. net loss
  4. increase in value of the business
5. Prepaid expenses are classified as:
  1. fixed assets
  2. capital
  3. equipment
  4. deferred charges
6. The total amount to be paid to creditors on open account is listed on the balance sheet as:
  1. liabilities
  2. assets
  3. current liabilities
  4. accounts payable
7. Notes receivable are classified on the financial statements as:
  1. current assets
  2. long-term assets
  3. current liabilities
  4. long-term liabilities
8. Property taxes owed but not yet due are classified as:
  1. prepaid expense
  2. unearned revenue
  3. accrued assets
  4. accrued liabilities
9. The accumulated depreciation account is called a valuation account or a (an):
  1. asset
  2. liability
  3. expense
  4. none of these
10. The amount of the insurance prepaid at the end of the fiscal period is shown on the:
  1. income statement
  2. balance sheet
  3. capital statement
  4. schedule of expenses

11. A transaction affecting only two balance sheet items resulted in a decrease in capital. It could also:
  1. decrease a liability
  2. increase an asset
  3. increase income
  4. increase a valuation account
12. Rent received in advance from a tenant was credited to rent income when received. This rent is now earned and should be classified as:
  1. income
  2. deferred revenue
  3. expenses payable
  4. income receivable
13. Allowances for uncollectible accounts should be classified as:
  1. prepaid expense
  2. expenses payable
  3. income receivable
  4. estimated items
14. A collective term which refers to all the personal accounts with creditors is:
  1. accounts receivable
  2. accounts payable
  3. assets
  4. liabilities
15. A capital statement reveals a beginning balance of \$15,000, a net reduction of \$1,000 resulting from the correction of errors, net income of \$12,000 and proprietor's withdrawals of \$5,000. The capital balance at the end of the period is:
  1. \$31,000
  2. \$27,000
  3. \$30,000
  4. \$21,000
16. The asset, liability, and proprietor's capital accounts are referred to as:
  1. equity accounts
  2. real accounts
  3. nominal accounts
  4. none of these
17. A special fund for use in disbursing small sums of money is called:
  1. change fund
  2. cash box
  3. petty cash
  4. cash
18. The kind of liability incurred by the endorser in discounting a note receivable is:
  1. contingent
  2. fixed
  3. secondary
  4. primary
19. A draft in which the drawee is given a certain length of time in which to pay is a:
  1. time draft
  2. check
  3. sight draft
  4. bank draft

20. The customary assumption that an enterprise will continue to operate for an indefinite period in the future is known as:
- |                   |                |
|-------------------|----------------|
| 1. perpetual life | 2. continuity  |
| 3. going concern  | 4. consistency |
21. The journal entry to transfer the balance of one account to another is:
- |                     |                    |
|---------------------|--------------------|
| 1. closing entry    | 2. adjusting entry |
| 3. correcting entry | 4. combining entry |
22. Journal entries made at the end of the fiscal period to bring the asset, liability, income, and expense accounts up-to-date are known as:
- |                      |                       |
|----------------------|-----------------------|
| 1. adjusting entries | 2. closing entries    |
| 3. original entries  | 4. correcting entries |
23. The amount of the expenses incurred but not paid are said to be:
- |              |              |
|--------------|--------------|
| 1. unsecured | 2. uncertain |
| 3. accrued   | 4. assets    |
24. When special journals are in use, a transaction involving the purchase of merchandise on account would be entered in the:
- |                          |                    |
|--------------------------|--------------------|
| 1. purchases journal     | 2. sales journal   |
| 3. cash payments journal | 4. general journal |
25. The sales journal provides, in one place, a condensed record of all
- |                 |                          |
|-----------------|--------------------------|
| 1. sales        | 2. cash sales            |
| 3. credit sales | 4. sales on open account |
26. When merchandise is returned to you it is recorded in the:
- |                                             |
|---------------------------------------------|
| 1. sales returns and allowances journal     |
| 2. purchases returns and allowances journal |
| 3. purchases journal                        |
| 4. sales journal                            |
27. Sales recorded in the cash receipts journal are:
- |                                                          |
|----------------------------------------------------------|
| 1. sales on account                                      |
| 2. those that are collected in the current fiscal period |
| 3. cash sales                                            |
| 4. none of these                                         |
28. Individual entries in the purchases journal are posted to the account named as a:
- |             |             |
|-------------|-------------|
| 1. debit    | 2. increase |
| 3. decrease | 4. credit   |

29. Received a 90-day, noninterest-bearing note for \$500 on account. The note is accepted at 6% discount. The account(s) that will be debited is (are):
1. accounts receivable
  2. accounts receivable and interest expense
  3. notes receivable
  4. notes receivable and interest expense
30. When the voucher register is in use, the drawing of a check necessitates entries in:
1. check register and voucher register
  2. check register and cash payments journal
  3. voucher register
  4. cash payments journal
31. The totals, in pencil, of the amount columns are known as:
1. balances
  2. assets
  3. statements
  4. footings
32. Accrued taxes of \$900 at the end of the period, ending December 31, 1963, were overlooked and no adjusting entry was recorded. Assuming that this error was not corrected and that no error of a similar nature occurred in the following period, ending December 31, 1964, the effect on net income of the later period is:
1. overstatement
  2. understatement
  3. increased
  4. decreased
33. The net income reported on the income statement for the period is \$6,700. It is discovered that accrued wages of \$700 at the end of the period were ignored. Net income as corrected is:
1. \$6,000
  2. \$7,000
  3. \$8,100
  4. \$6,700
34. The capital account has a credit balance of \$15,000 before the books are closed, the proprietor has withdrawn a total of \$7,000 during the year, and the net income for the year is \$5,500. After closing the books the capital account will have a balance of:
1. \$13,500
  2. \$27,500
  3. \$8,000
  4. \$20,500
35. The ending merchandise inventory is shown on both the balance sheet and the:
1. income statement
  2. capital statement
  3. inventory records
  4. purchase invoices
36. An account with a balance that is partly a balance sheet amount and partly an income statement amount is called a:
1. nominal account
  2. real account
  3. mixed account
  4. clearing account

37. Monthly statements prepared without closing the books are called:
1. final statements
  2. interim statements
  3. determination statements
  4. end of the month statements
38. When the contract rate of interest on bonds is higher than the market rate the bonds sell at a:
1. premium
  2. discount
  3. higher price
  4. lower price
39. Operating expenses are subtracted from gross profit on sales to determine the:
1. gross income from operations
  2. net income from operations
  3. net income before income taxes
  4. gross income before income taxes
40. When the simple average inventory method is in use the cost assigned to the units issued under the following conditions is:
- |        |          |                      |
|--------|----------|----------------------|
| Oct. 1 | Received | 1,200 units @ \$1.00 |
| 4      | Issued   | 600 units            |
| 10     | Received | 600 units @ 1.04     |
| 17     | Issued   | 600 units            |
| 21     | Received | 400 units @ 1.06     |
| 24     | Issued   | 400 units            |
1. \$1,664
  2. \$1,616
  3. \$1,632
  4. \$1,648
41. The inventory amount determined at the end of the fiscal period is deducted from the cost of merchandise available for sale in order that:
1. the amount of the net profit may be determined
  2. the amount of the cost of goods sold may be determined
  3. the amount of the gross profit on sales may be determined
  4. the cost of goods sold will not be understated
42. The amount necessary to pay a \$250 invoice, terms 3/10, 2/20, n/30, twenty days after the date of the invoice is:
1. \$225
  2. \$250
  3. \$245
  4. \$255
43. A sale is made to Peters, \$975, terms 1/10, n/30, f.o.b. shipping point. At the request of Mr. Peters the freight, which amounts to \$48.10 is prepaid and charged to him. If Mr. Peters pays the invoice within 10 days he will remit:
1. \$1,012.87
  2. \$964.77
  3. \$1,013.35
  4. \$965.25

44. A purchase is made from Thomas and Son, \$1,246.15, terms 1/30, n/90, f.o.b. shipping point. The goods are shipped freight prepaid; amount of freight, \$83.60. If the invoice is paid within 35 days after the invoice date the amount to be remitted is:
- |               |               |
|---------------|---------------|
| 1. \$1,329.75 | 2. \$1,246.15 |
| 3. \$1,317.29 | 4. \$1,233.69 |
45. The Morehead Corporation is authorized to issue 5,000 shares of \$100 par value preferred stock and 100,000 shares of no-par common stock. The board of directors determines that the common stock sold will have a stated value of \$5 per share. The amount of discount or premium if Morehead conveys buildings with a fair value of \$225,000 to the corporation in return for 40,000 shares of common stock (no established market value) is:
- |             |              |
|-------------|--------------|
| 1. \$5.65   | 2. zero      |
| 3. \$25,000 | 4. \$175,000 |
46. XYZ Co. discounted a \$600, 90-day, 6% interest-bearing note receivable at 6% at the local bank. The note was dated March 1 and was discounted March 31. The proceeds are:
- |             |             |
|-------------|-------------|
| 1. \$606.00 | 2. \$603.00 |
| 3. \$600.00 | 4. \$602.91 |
47. The XYZ Co. discounted a \$600, 90-day, 6% interest bearing note receivable at 6% at the local bank. The note was dated March 1 and was discounted March 31. The bank will earn in interest:
- |           |           |
|-----------|-----------|
| 1. \$6.00 | 2. \$9.00 |
| 3. \$3.00 | 4. \$6.09 |
48. An issue of bonds with variable maturities is known as:
- |                    |                  |
|--------------------|------------------|
| 1. debenture bonds | 2. secured bonds |
| 3. serial bonds    | 4. none of these |
49. The Wall Co. issues \$400,000 of 20-year 4% first mortgage bonds on July 1, 1965. Interest is payable semiannually on July 1 and January 1. The bonds are sold for cash at 98 on July 1, 1965. The proceeds are:
- |              |              |
|--------------|--------------|
| 1. \$408,000 | 2. \$392,000 |
| 3. \$400,000 | 4. \$8,000   |
50. The Alexander Corporation issues \$800,000 of 20-year 5% bonds. Interest is payable semiannually on July and January 1. The bonds are sold at 97 on the issue date, January 1, 1965. The amount that most clearly represents the interest expense for 1965 is:
- |             |             |
|-------------|-------------|
| 1. \$38,600 | 2. \$18,600 |
| 3. \$41,400 | 4. \$41,200 |

51. The Alexander Corporation issues \$800,000 of 20-year 5% bonds. Interest is payable annually on January 1. The bonds are sold at 102 on the issue date, January 1, 1965. The amount of interest actually paid during 1965 is:
1. \$40,000
  2. zero
  3. \$20,000
  4. \$8,000
52. The capital accounts of a corporation are: Common Stock (\$10 par), \$100,000; Premium on Common Stock, \$30,000; and Retained Earnings, \$210,000. The book value per share is:
1. \$34
  2. \$13
  3. \$31
  4. \$24
53. The total equity of a class of stock divided by the number of outstanding shares yields the:
1. market value
  2. book value
  3. purchase price
  4. equity
54. The method of computing depreciation that employs double the straight line rate is called:
1. sum of the years-digits
  2. declining balance
  3. accelerated
  4. average
55. The inventory method that charges costs against revenues in the order in which the costs are incurred is known as:
1. physical
  2. first-in first-out
  3. last-in first-out
  4. perpetual
56. An event that does not represent a business transaction is:
1. merchandise is ordered for delivery next month
  2. a truck is purchased on account
  3. a customer returns merchandise and is given credit on account
  4. a prospective employee is interviewed
57. One significant feature of the voucher system is that it provides for:
1. authenticity
  2. continuity
  3. consistency
  4. control
58. The books show that on July 1 the cash account had a balance of \$2,560.84; the cashbook shows receipts during July of \$14,635.40, and disbursements of \$14,111.41. The check stubs show a balance of \$2,737.33 at the end of July. Cash on Hand, not deposited, on July 31 amounted to \$320.50.

In proving the cashbook on July 31, it was found that a check written for \$74.10 to W. Kesler to apply on account, had been entered correctly in the check stubs as \$74.10 but had been entered in the cashbook as \$47.10.

The correct cash balance as of July 31 is:

- |               |               |
|---------------|---------------|
| 1. \$2,737.33 | 2. \$3,030.83 |
| 3. \$3,057.83 | 4. \$3,084.83 |

59. Rent is paid on August 1, 1965, for building A for a period of one year, \$600, and on July 1, 1965, for building B for a period of six months, \$1,200. The account charged at the time of payment was Rent Expense. The adjusting entry at the end of 1965 should be:

- |          |            |
|----------|------------|
| 1. \$350 | 2. \$900   |
| 3. \$950 | 4. \$1,100 |

60. Buildings costing \$40,000 which have an expected life of 20 years and a salvage value of \$4,000 were purchased on January 10, 1965. The amount of the decrease in value due to depreciation, figured on the straight-line basis, at the end of 1965, is:

- |            |            |
|------------|------------|
| 1. \$200   | 2. \$2,200 |
| 3. \$2,000 | 4. \$1,800 |

61. The amount that should be shown for purchases during 1965, under the following conditions, is:

|                                                             |             |
|-------------------------------------------------------------|-------------|
| Accounts Payable (trade) Jan. 1, 1965                       | \$ 4,000    |
| Accounts Payable (trade) Dec. 31, 1965                      | 3,500       |
| Notes Payable (bank loan) Jan. 1, 1965                      | 9,000       |
| Notes Payable (bank loan) Dec. 31, 1965                     | 7,000       |
| Cash purchases                                              | 14,000      |
| Cash paid to creditors for merchandise purchased on account | 31,700      |
| Purchases discounts taken                                   | 1,600       |
| 1. \$48,400                                                 | 2. \$46,800 |
| 3. \$46,700                                                 | 4. \$48,800 |

62. The accounts payable balance at the start of the year was \$19,500; at the end of the year the balance was \$20,000. During the year payments to trade creditors totaled \$94,000, and cash purchases of merchandise totaled \$59,500. The total cost of purchases during the year is:

- |              |              |
|--------------|--------------|
| 1. \$153,000 | 2. \$94,500  |
| 3. \$154,000 | 4. \$153,500 |

63. A 90-day, 6% interest-bearing note for \$4,000 was received on November 1, from an advertiser who could not pay his account when it became due. The amount of the adjustment for earned interest at the end of the calendar year should be:

- |          |         |
|----------|---------|
| 1. \$20  | 2. \$60 |
| 3. \$240 | 4. \$40 |

64. A buys 100 units of an item at an invoice cost of \$800. The freight bill is \$50. If these items were bought on terms of 2/10, n/30 and the invoice and freight bill were paid within the 10 day period the cost per unit would be:
- |           |           |
|-----------|-----------|
| 1. \$7.84 | 2. \$8.34 |
| 3. \$8.33 | 4. \$7.83 |
65. The three principal financial statements are the:
1. balance sheet, budget, and income statement
  2. balance sheet, income statement, and capital statement
  3. balance sheet, capital statement, and work sheet
  4. balance sheet, schedule of assets, and income statement
66. The financial statement(s) in which bonds payable should appear is (are) the:
- |                     |                                        |
|---------------------|----------------------------------------|
| 1. balance sheet    | 2. capital statement                   |
| 3. income statement | 4. balance sheet and capital statement |
67. The financial statement(s) in which administrative salaries should appear is (are) the:
- |                     |                                       |
|---------------------|---------------------------------------|
| 1. balance sheet    | 2. statement of retained earnings     |
| 3. income statement | 4. balance sheet and income statement |
68. On September 1 the balance of the accounts payable controlling account in the general ledger of Donald MacArthur & Co. was \$4,860. The subsidiary ledger contained account balances as follows: Palmer, \$1,270; Harney, \$870; Maxwell, \$1,650; and Burke, \$1,070.

At the end of September the various journals contained the following information:

Purchases Journal: Palmer, \$1,200; Harney, \$1,050; Maxwell, \$1,080; Burke, \$1,150; and Hogan, \$1,465.

Cash Payments Journal: Maxwell, \$1,000; Burke, \$1,070; and Palmer, \$2,446. Palmer allowed us a \$24 discount.

General Journal: Allowance from Hogan, \$45; return of merchandise to Harney, \$60; and an entry to correct an overcharge which Burke had made on an invoice, \$20.

The balance due to Maxwell is:

- |            |            |
|------------|------------|
| 1. zero    | 2. \$1,730 |
| 3. \$2,730 | 4. \$1,650 |

69. The financial statement(s) in which transportation-out should appear is (are) the:
1. balance sheet
  2. income statement
  3. statement of retained earnings
  4. balance sheet and income statement
70. The financial statement(s) in which inventory (ending) should appear is (are) the:
1. balance sheet
  2. income statement
  3. statement of retained earnings
  4. balance sheet and income statement
71. The financial statement(s) in which sales allowances should appear is (are) the:
1. balance sheet
  2. statement of retained earnings
  3. income statement
  4. balance sheet and income statement
72. The balance of the sales account after all closing entries have been posted will be (a):
1. zero
  2. debit
  3. credit
  4. large
73. The allowance for the depreciation of building account is closed into the:
1. building account
  2. expense account
  3. expense and revenue summary account
  4. none of these
74. The capital account showed a balance of \$30,000 at the beginning of the year and a balance of \$39,000 at the end of the year. Which of the following factors might have been responsible for this change?
1. decrease in liabilities
  2. decrease in withdrawals
  3. excess of assets over withdrawals
  4. excess of revenue over expenses
75. Under the matching concept, which of the following items should be included as expenses in September?
1. property taxes for the year ending next April 30 will be \$2,600 and will be paid next May
  2. insurance premiums of \$280 were paid January 2 of this year for insurance coverage for the calendar year
  3. supplies costing \$900 were purchased in September and one-third of them were used in September
  4. all of these

Form 2

1. A debit to an account:
  1. increases liabilities
  2. increases assets
  3. decreases assets
  4. increases proprietorship
2. A decrease in assets is recorded in the appropriate account as a:
  1. credit
  2. journal entry
  3. posted item
  4. debit
3. Legal expenses connected with the purchase of land are recorded in the:
  1. asset accounts
  2. purchases account
  3. land account
  4. cash account
4. If the credit side of the expense and revenue summary account is the larger side at the time it is ready to be closed, the balance is a:
  1. positive asset amount
  2. negative proprietorship amount
  3. loss
  4. profit
5. A note given to a creditor is considered as:
  1. a liability
  2. an expense
  3. an asset
  4. current liability
6. Land is a:
  1. current asset
  2. deferred credit to income
  3. fixed asset
  4. current liability
7. Interest income is classified on the financial statements as:
  1. current assets
  2. fixed assets
  3. income
  4. other income
8. Rent received but not earned should be classified under the balance sheet caption:
  1. cash
  2. current asset
  3. current liability
  4. capital
9. The balance of the allowance for bad debts account is shown on the:
  1. income statement
  2. capital statement
  3. balance sheet
  4. financial statement
10. Another term that is sometimes used to designate prepaid expenses is:
  1. current asset
  2. deferred charge
  3. deferred credit
  4. unused

11. The relationship between the words "increase" and "decrease" and the terms "debit" and "credit" is:
  1. debit increases and credit decreases
  2. debit decreases and credit increases
  3. debit and credit increases
  4. none of these
12. Advertising matter on hand for use next month \$210, charged to advertising expense when acquired should be classified as:
  1. prepaid expense
  2. deferred revenue
  2. expenses payable
  4. income receivable
13. Allowance for depreciation on delivery equipment is a (an):
  1. prepaid expense
  2. deferred revenue
  3. expense payable
  4. estimated item
14. The difference between cost of merchandise sold and sales is called:
  1. gross profit on sales
  2. income from sales
  3. ending merchandise inventory
  4. supplies
15. The debit balance of the equipment account should show the equipment:
  1. purchase price
  2. cost
  3. trade in value
  4. market price
16. An individual who gives a note that requires him to pay interest at maturity is known as the:
  1. drawer
  2. maker
  3. drawee
  4. payee
17. Merchandise in transit should be included in the purchaser's inventory if the terms are f.o.b.:
  1. shipping point
  2. destination
  3. carrier
  4. date of shipment
18. The term used to indicate that a note is not paid at maturity is:
  1. discounted
  2. dishonored
  3. unpaid
  4. bad
19. Transactions that permit delayed payments and involve additional transactions before the deal is closed by the final payment are known as:
  1. liability
  2. debtor
  3. credit
  4. creditor

20. The concept of a business enterprise as being separate and distinct from the persons who supply the assets is called:
- |                    |                    |
|--------------------|--------------------|
| 1. separate entity | 2. continuity      |
| 3. perpetual       | 4. life enterprise |
21. Entries that bring all accounts up to date are called
- |              |               |
|--------------|---------------|
| 1. closing   | 2. reversing  |
| 3. adjusting | 4. correcting |
22. An account receivable that is to be charged off as a bad debt is said to be:
- |              |                  |
|--------------|------------------|
| 1. bad       | 2. uncollectible |
| 3. uncertain | 4. unsecured     |
23. Income and expense accounts are sometimes called:
- |                             |                            |
|-----------------------------|----------------------------|
| 1. capital accounts         | 2. proprietorship accounts |
| 3. temporary proprietorship | 4. real accounts           |
24. When special journals are in use, a transaction involving a return of damaged merchandise to a supplier would be entered in the:
- |                          |                    |
|--------------------------|--------------------|
| 1. purchases journal     | 2. sales journal   |
| 3. cash payments journal | 4. general journal |
25. The sales journal provides, in one place, a condensed record of all:
- |                 |                          |
|-----------------|--------------------------|
| 1. sales        | 2. cash sales            |
| 3. credit sales | 4. sales on open account |
26. Each entry in the purchases journal represents a creditor's account:
- |             |             |
|-------------|-------------|
| 1. debit    | 2. charge   |
| 3. increase | 4. decrease |
27. The total of the sales journal is debited to the:
- |                                |                             |
|--------------------------------|-----------------------------|
| 1. sales account               | 2. sales discount account   |
| 3. accounts receivable account | 4. accounts payable account |
28. The use of special journals causes the amount of posting to:
- |             |                    |
|-------------|--------------------|
| 1. change   | 2. increase        |
| 3. decrease | 4. remain the same |
29. Gave a 30-day, 6% interest-bearing note for \$900 in payment of an account payable amounting to \$900. The account(s) to be debited is (are):
- |                     |                                          |
|---------------------|------------------------------------------|
| 1. accounts payable | 2. accounts payable and interest expense |
| 3. notes payable    | 4. notes payable and interest expense    |

30. When the voucher system is in use, the ledger that becomes unnecessary is the:  
1. general ledger                      2. accounts receivable ledger  
3. accounts payable ledger          4. subsidiary ledger
31. The difference between the debits and credits in an account is called the:  
1. pencil footing                      2. balance  
3. value of the account              4. weight
32. Accrued taxes of \$900 at the end of the period were overlooked and no adjusting entry was recorded. The effect on net income is a (an):  
1. overstatement                      2. understatement  
3. increase                              4. decrease
33. If the credit portion of a \$250 transaction is erroneously posted to the ledger as a debit the trial balance will differ by:  
1. \$250                                      2. \$500  
3. \$750                                      4. none of these
34. If sales on account total \$50,000, cash sales total \$20,000, and collections on account total \$60,000, revenue for the period is:  
1. \$80,000                                  2. \$110,000  
3. \$70,000                                  4. \$130,000
35. If A's proprietorship is \$3,000 and his liabilities are \$2,000, his assets are:  
1. \$1,000                                      2. \$3,000  
3. \$2,000                                      4. \$5,000
36. Jones has \$10,000 in assets and \$2,000 in liabilities, his proprietorship is:  
1. \$12,000                                      2. \$8,000  
3. \$20,000                                      4. \$10,000
37. A device used as an aid in preparing financial statements is called a:  
1. trial balance                              2. ledger  
3. work sheet                                  4. book of original entry
38. The information needed to prepare the balance sheet is obtained directly from the:  
1. journal                                      2. ledger  
3. work sheet                                  4. trial balance

39. When cash discounts available on purchases are considered to be reductions in price, the amounts of discounts not taken are reported as:
1. purchase returns and allowances
  2. cash discounts
  3. purchase discounts
  4. none of these
40. In determining the gross profit on sales one must subtract from net sales the amount of the:
1. purchases
  2. beginning inventory
  3. operating expense
  4. merchandise sold
41. When the first-in first-out inventory method is in use, the cost assigned to the units issued under the following conditions is:
- |        |          |             |   |        |
|--------|----------|-------------|---|--------|
| Oct. 1 | Received | 1,200 units | @ | \$1.00 |
| 4      | Issued   | 600 units   |   |        |
| 10     | Received | 600 units   | @ | 1.04   |
| 17     | Issued   | 600 units   |   |        |
| 21     | Received | 400 units   | @ | 1.06   |
| 24     | Issued   | 400 units   |   |        |
1. \$1,664
  2. \$1,616
  3. \$1,640
  4. \$1,648
42. When the last-in first-out inventory method is in use, the cost assigned to the ending inventory under the following conditions is:
- |        |          |             |   |        |
|--------|----------|-------------|---|--------|
| Oct. 1 | Received | 1,200 units | @ | \$1.00 |
| 4      | Issued   | 600 units   |   |        |
| 10     | Received | 600 units   | @ | 1.04   |
| 17     | Issued   | 600 units   |   |        |
| 21     | Received | 400 units   | @ | 1.06   |
| 24     | Issued   | 400 units   |   |        |
1. \$624
  2. \$632
  3. \$618
  4. \$600
43. The purpose of the cost of goods sold account is to:
1. determine the amount of goods available for sale
  2. determine the amount of goods on hand
  3. determine the amount of goods sold
  4. determine the profits for the period
44. An invoice for \$600, terms 2/10, n/30, f.o.b. shipping point on which freight of \$15 has been prepaid, is paid within 10 days. The amount to be paid is:
1. \$602.70
  2. \$586.30
  3. \$588.00
  4. \$603.00

45. A sale is made to Ruff & Co., \$768.10, terms 2/10, n/30, f.o.b. destination. The freight is not prepaid, and five days later a letter is received from Ruff & Co. stating that the freight amounted to \$64.50. If the invoice is paid within the ten day period the amount to be remitted is:
- |             |             |
|-------------|-------------|
| 1. \$689.53 | 2. \$688.24 |
| 3. \$817.24 | 4. \$815.95 |
46. Sold merchandise, \$2,000, and accepted a 60-day 6% interest-bearing note in settlement of the invoice price. The total cost of the merchandise to the purchaser is:
- |            |            |
|------------|------------|
| 1. \$2,000 | 2. \$2,120 |
| 3. \$2,020 | 4. \$2,002 |
47. XYZ Co. discounted a \$600, 90-day, 6% interest-bearing note receivable at 6% at the local bank. The note was dated March 1 and was discounted March 31. The interest income or expense of the XYZ Co. is:
- |                  |                   |
|------------------|-------------------|
| 1. income \$2.91 | 2. expense \$9.00 |
| 3. income \$3.00 | 4. expense \$7.50 |
48. Issued a \$10,000, 60-day, 6% interest-bearing note to the local bank on December 11, 1965. The amount of the adjustment for interest expense at the end of the year should be:
- |               |             |
|---------------|-------------|
| 1. \$66.67    | 2. \$33.33  |
| 3. \$2,000.00 | 4. \$100.00 |
49. Bonds issued on the basis of the general credit of the issuing corporation are known as:
- |                    |                  |
|--------------------|------------------|
| 1. debenture bonds | 2. income bonds  |
| 3. unsecured bonds | 4. none of these |
50. The Wall Co. issues \$400,000 of 20-year 4% first mortgage bonds on July 1, 1965. Interest is payable semiannually on July 1 and January 1. The bonds are sold for cash at 98 on July 1, 1965. The amount of interest actually paid during 1965 is:
- |            |             |
|------------|-------------|
| 1. \$8,000 | 2. \$16,000 |
| 3. zero    | 4. \$4,000  |
51. The Alexander Corporation issues \$800,000 of 20-year 5% bonds. Interest is payable semiannually on July 1 and January 1. The bonds are sold at 97 on the issue date, January 1, 1965. The proceeds are:
- |              |              |
|--------------|--------------|
| 1. \$800,000 | 2. \$824,000 |
| 3. \$774,000 | 4. \$776,000 |

52. If a corporation does not declare a dividend at the usual time for dividend declarations, the dividend is said to have been:
- |            |           |
|------------|-----------|
| 1. delayed | 2. unpaid |
| 3. passed  | 4. missed |
53. The Alexander Corporation issues \$800,000 of 20-year 5% bonds. Interest is payable annually on January 1. The bonds are sold at 102 on the issue date. The amount that most nearly represents the interest expense for 1965 is:
- |             |             |
|-------------|-------------|
| 1. \$40,800 | 2. \$20,000 |
| 3. \$39,600 | 4. \$39,200 |
54. The date as of which ownership of shares of stock is to be determined for purposes of paying a dividend is known as the:
- |                   |                     |
|-------------------|---------------------|
| 1. contract date  | 2. date of issuance |
| 3. date of record | 4. payment date     |
55. The Morehead Corporation is authorized to issue 5,000 shares of \$100 par value preferred stock and 100,000 shares of no-par common stock. The board of directors determines that the common stock sold will have a stated value of \$5 per share. The amount of the discount or premium if the corporation issues 25,000 shares of common stock in return for equipment which the owner developed at a cost of \$575,000 and on the date of the transaction the corporation common stock is being traded on the market at \$16.25 per share is:
- |              |              |
|--------------|--------------|
| 1. \$301,250 | 2. \$105,000 |
| 3. \$406,250 | 4. \$281,250 |
56. The method of determining the cost of inventory that employs records of the selling price of merchandise is known as:
- |                      |                 |
|----------------------|-----------------|
| 1. physical          | 2. gross profit |
| 3. last-in first-out | 4. perpetual    |
57. During the period of rising prices the method of determining the cost of inventory that will yield the lower reported income is:
- |                       |                      |
|-----------------------|----------------------|
| 1. physical           | 2. average           |
| 3. first-in first-out | 4. last-in first-out |
58. If the cost of a new typewriter (\$300) purchased for office use were recorded as a debit to purchases, the effect of the error on the balance sheet would be:

1. understatement of assets and understatement of capital
  2. understatement of assets and overstatement of capital
  3. overstatement of assets and understatement of capital
  4. overstatement of assets and overstatement of capital
59. When special journals are in use, a transaction that would require double posting is:
1. refund to a cash customer for re-turned merchandise
  2. collection of cash from a customer
  3. payment of freight charges on goods received, f.o.b. destination
  4. payment of freight charges on goods received, f.o.b. shipping point
60. The following facts relate to the cash position of the business as of March 31, 1965. The balance of the cash account on March 1, 1965, was \$2,320.29. The cashbook shows a total debit to cash amounting to \$14,322.50, and a total credit to cash amounting to \$14,382.12. The cash on hand represents receipts for March 31 and amounts to \$287.29.

The bank statement received April 2 indicates that on March 31 the cash balance was \$2,327.98. An examination of the canceled checks shows that the following checks have not been paid by the bank: #1874, \$39.60; #1895, \$18.10; #1907, \$75.00; #1909, \$100.00; and #1910, \$34.40.

The bank also returned a check for \$12.50 which was received from Paul Lyon; the check is marked N.S.F. and a bank debit slip for this amount was included with the bank statement.

On March 30 the bank credited our account with \$100, this being the amount of a check received from Robert George in payment of a note which was due at the bank.

The correct cash balance as of March 31, 1965, is:

1. \$2,240.48
  2. \$2,260.67
  3. \$1,973.38
  4. \$2,348.17
61. Rent is paid on August 1, 1965, for building A for one year, \$600, and on July 1, 1965, for building B for six months, \$1,200. The account charged at the time of payment was prepaid rent. The adjusting entry at the end of 1965, should be:
1. \$1,100
  2. \$1,450
  3. \$900
  4. \$850

62. A fire completely destroys the merchandise of a merchandising business. Utilizing the following information the company would compute the cost of the inventory at the time of the fire to be:

|                                             |             |
|---------------------------------------------|-------------|
| Inventory, Jan. 1 (at cost)                 | \$18,530.00 |
| Purchases, Jan. 1-17 (at cost)              | 43,460.75   |
| Sales, Jan. 1-17                            | 52,670.87   |
| Rate of gross profit based on selling price | 20%         |

- |                |                |
|----------------|----------------|
| 1. \$19,854.05 | 2. \$10,534.17 |
| 3. \$72,524.92 | 4. \$52,136.70 |

63. Any account in the general ledger that is supported by a subsidiary ledger is known as a:

- |                        |                       |
|------------------------|-----------------------|
| 1. special account     | 2. general account    |
| 3. controlling account | 4. subsidiary account |

64. The amount that should be reported for sales under the following conditions is:

|                                                                  |          |
|------------------------------------------------------------------|----------|
| Cash sales per the cash register                                 | \$ 6,780 |
| Accounts receivable from customers, Jan. 1, 1965                 | 24,000   |
| Accounts receivable from customers, Dec. 31, 1965                | 21,500   |
| Cash collected from customers in 1965 for amounts billed to them | 156,900  |
| Cash discounts granted to customers during 1965                  | 2,400    |
| Returns of merchandise sold to customers during 1965             | 4,000    |
| Transportation-out billed to customers during 1965               | 1,600    |

- |              |              |
|--------------|--------------|
| 1. \$166,780 | 2. \$153,180 |
| 3. \$168,380 | 4. \$165,980 |

65. The net income or loss for 1965 under the following conditions is:

|                                    |          |    |
|------------------------------------|----------|----|
| Owners' equity, Jan. 1, 1965       | \$34,000 |    |
| Additional investments during 1965 | 3,000    |    |
| Cash withdrawals during the year   | 7,000    | -- |
| Owners' equity, Dec. 31, 1965      | 36,000   |    |

- |            |             |
|------------|-------------|
| 1. \$6,000 | 2. \$2,000  |
| 3. \$4,000 | 4. \$12,000 |

66. A collection of related debits and credits under one descriptive title is (are) (a):  
 1. journal entries                      2. balance sheet  
 3. trial balance                        4. ledger account
67. The financial statement(s) in which allowance for bad debts should appear is (are) the:  
 1. balance sheet                      2. statement of retained earnings  
 3. income statement                4. balance sheet and capital statement
68. The financial statement(s) in which retained earnings should appear is (are) the:  
 1. balance sheet                      2. statement of retained earnings  
 3. income statement                4. statement of retained earnings and balance sheet
69. On September 1 the balance of the accounts payable controlling account in the general ledger of Donald MacArthur & Co. was \$4,860.

The subsidiary ledger contained account balances as follows: Palmer, \$1,270; Harney, \$870; Maxwell, \$1,650; and Burke, \$1,070.

At the end of September the various journals contained the following information:

Purchases Journal: Palmer, \$1,200; Harney, \$1,050; Maxwell, \$1,080; Burke, \$1,150; and Hogan, \$1,465.

Cash Payments Journal: Maxwell, \$1,000; Burke, \$1,070; and Palmer, \$2,446. Palmer allowed us a \$24 discount.

General Journal: Allowances from Hogan, \$45; Return of merchandise to Harney, \$60; Entry to correct an overcharge which Burke had made on an invoice, \$20.

The balance due Palmer is:

- |         |            |
|---------|------------|
| 1. \$24 | 2. \$2,470 |
| 3. zero | 4. \$1,270 |

70. The financial statement(s) in which premium on common stock should appear is (are) the:  
 1. balance sheet                      2. income statement  
 3. income statement                4. balance sheet and income statement

71. The financial statement(s) in which prepaid insurance should appear is (are) the:
1. balance sheet
  2. statement of retained earnings
  3. income statement
  4. balance sheet and income statement
72. The balance in the store supplies account before adjustment is \$450; the total cost of the store supplies on hand at the end of the period is \$60. The amount of the appropriate adjusting entry is:
1. \$60
  2. \$50
  3. \$390
  4. \$510
73. At the end of the fiscal period, the operating expenses are closed into:
1. cash
  2. expense and revenue summary
  3. proprietor's drawing account
  4. proprietor's investment account
74. Characteristics common to the supplies account are:
1. it is debited to increase the balance and it is a real account
  2. it is credited to increase the balance and it is a real account
  3. it is debited to decrease the balance and it is a nominal account
  4. it is credited to increase the balance and it is a nominal account
75. An account that is known as a nominal account is:
1. furniture and equipment
  2. income from services
  3. office supplies
  4. prepaid rent

Form 3

1. Debits to expense accounts may be viewed as either decreases in proprietorship or:
  1. decreases in assets
  2. increases in liabilities
  3. decreases in expenses
  4. increases in expenses
2. A credit to an account:
  1. increases assets
  2. increases proprietorship
  3. increases expenses
  4. decreases liabilities
3. Purchases returns and allowances are recorded in the:
  1. accounts receivable
  2. expense and revenue summary
  3. sales account
  4. none of these
4. Immediately after reversing entries have been posted, the salary expense account has a credit balance of \$240. This item is a (an):
  1. asset
  2. liability
  3. revenue
  4. expense
5. Furniture on a balance sheet would be a:
  1. current liability
  2. fixed asset
  3. deferred credit to income
  4. proprietorship item
6. Prepaid interest expense is classified on the financial statements as:
  1. current assets
  2. fixed assets
  3. current liabilities
  4. long-term liabilities
7. The balance of the allowance for depreciation of equipment account is shown on the:
  1. income statement
  2. capital statement
  3. financial statement
  4. balance sheet
8. The most conservative method of costing inventory when prices are rising is:
  1. last-in first-out
  2. average
  3. first-in first-out
  4. sum of the years-digits
9. Unearned rent income should be classified as a (an):
  1. asset
  2. liability
  3. expense
  4. income
10. Rent due from a subtenant should be classified as:
  1. prepaid expense
  2. deferred revenue
  3. expenses payable
  4. income receivable

11. A frequently used synonym for the word "debit" is:
  1. increase
  2. credit
  3. decrease
  4. charge
12. The difference between sales and cost of sales is:
  1. profit
  2. ending inventory
  3. gross profit
  4. net profit
13. Verifying the bank statement with the check-stub record is known as:
  1. justifying the balance
  2. reconciling the bank account
  3. proving equality
  4. none of these
14. The amount paid for an insurance contract is called:
  1. cost
  2. value
  3. expense
  4. premium
15. The expression n/30 means that payment is to be made on an account within:
  1. thirty days after the date of the sale
  2. thirty days after the date of the invoice
  3. thirty days after the end of the month in which the sale was made
  4. none of these
16. A discount granted to a customer for early payment of his account is called:
  1. trade discount
  2. savings
  3. purchase discount
  4. sales discount
17. A person who owes a debt is called a:
  1. creditor
  2. debtor
  3. proprietor
  4. credit customer
18. The process of summarizing the income and the expense accounts and transferring the net profit or loss to proprietorship is known as:
  1. closing the ledger
  2. preparing the trial balance
  3. journalizing
  4. adjusting the ledger
19. Journal entries made at the end of the fiscal period that bring accounts up to date are called:
  1. closing entries
  2. reversing entries
  3. adjusting entries
  4. correcting entries
20. When special journals are in use, a transaction involving the sale of merchandise for cash would be entered in the:
  1. purchases journal
  2. sales journal
  3. cash receipts journal
  4. cash payments journal

21. When special journals are in use, a transaction involving a loan from a bank on a promissory note would be entered in the:
- |                          |                          |
|--------------------------|--------------------------|
| 1. sales journal         | 2. cash receipts journal |
| 3. cash payments journal | 4. general journal       |
22. In recording a cash investment entry you would record it in the:
- |                      |                          |
|----------------------|--------------------------|
| 1. general journal   | 2. cash payments journal |
| 3. purchases journal | 4. sales journal         |
23. When the owner of a sole proprietorship withdraws cash or merchandise from the business, it is recorded as a debit to:
- |               |                          |
|---------------|--------------------------|
| 1. investment | 2. cash                  |
| 3. drawing    | 4. merchandise inventory |
24. The total of the journal that is posted to the credit side of the sales account is:
- |                          |                    |
|--------------------------|--------------------|
| 1. cash receipts journal | 2. general journal |
| 3. sales journal         | 4. special journal |
25. In writing off an uncollectible account by the direct write-off method the account debited is:
- |                             |                                         |
|-----------------------------|-----------------------------------------|
| 1. accumulated depreciation | 2. allowance for uncollectible accounts |
| 3. bad debts                | 4. accounts receivable                  |
26. The use of a voucher register makes one of the following unnecessary:
- |                          |                      |
|--------------------------|----------------------|
| 1. general journal       | 2. sales journal     |
| 3. cash receipts journal | 4. purchases journal |
27. A voucher was drawn on January 1, 1965, to authorize payment of a note due on January 15, 1965. On January 13, 1965, management decided to issue a new sixty day note instead of making payment. The issue of this new note on January 13, 1965, necessitates entries in the:
- |                                         |                                       |
|-----------------------------------------|---------------------------------------|
| 1. general journal                      | 2. voucher register                   |
| 3. general journal and voucher register | 4. general journal and check register |
28. As the first step in preparing the trial balance the accounts having two or more debits or credits are:
- |             |           |
|-------------|-----------|
| 1. balanced | 2. footed |
| 3. compared | 4. posted |
29. The financial condition of a business at a specific time is shown by the:
- |                           |                     |
|---------------------------|---------------------|
| 1. amount of cash on hand | 2. income statement |
| 3. capital statement      | 4. balance sheet    |

30. An overstatement of the beginning inventory causes the net income to be:
- |               |                |
|---------------|----------------|
| 1. overstated | 2. understated |
| 3. increased  | 4. decreased   |
31. At the beginning of the year a company owes \$20,000 for merchandise bought in the preceding year: during the year it pays \$200,000 to merchandise suppliers; and at the end of the year it owes \$45,000 on merchandise purchased. Purchases during the year total:
- |              |              |
|--------------|--------------|
| 1. \$220,000 | 2. \$180,000 |
| 3. \$155,000 | 4. \$225,000 |
32. Gross profit can be calculated only if one knows the:
- |                  |                  |
|------------------|------------------|
| 1. profit        | 2. expense       |
| 3. cost of sales | 4. none of these |
33. A trial balance proves that the:
- |                                               |                      |
|-----------------------------------------------|----------------------|
| 1. journal is correct                         | 2. ledger is correct |
| 3. journal entries have been posted correctly | 4. none of these     |
34. Continuation of the same inventory method from year to year is an example of the principle of:
- |                |                  |
|----------------|------------------|
| 1. continuity  | 2. comparability |
| 3. consistency | 4. none of these |
35. Received a 60-day, 5% interest-bearing promissory note to apply on account, \$800. Took the note at 6% discount. The account(s) to be debited is (are):
- |                                          |                                         |
|------------------------------------------|-----------------------------------------|
| 1. accounts receivable                   | 2. notes receivable                     |
| 3. notes receivable and interest expense | 4. notes receivable and interest income |
36. An account with a balance that is partly a balance sheet amount and partly an income statement amount is called a:
- |                    |                     |
|--------------------|---------------------|
| 1. nominal account | 2. real account     |
| 3. mixed account   | 4. clearing account |
37. The income statement should include only those expenses:
- |             |            |
|-------------|------------|
| 1. incurred | 2. assumed |
| 3. paid     | 4. accrued |
38. Salaries accrued on the last day of the fiscal period total \$340; the salaries paid on the first pay-day of the subsequent period total \$1,500. Assuming no unusual circumstances, the salary expense up to this point in the subsequent period is:
- |            |            |
|------------|------------|
| 1. \$1,500 | 2. \$1,840 |
| 3. \$340   | 4. \$1,160 |

39. The due date of a 90-day note dated April 25 is:
  1. July 24
  2. July 25
  3. July 23
  4. July 26
40. When the last-in first-out inventory method is in use, the cost assigned to the units issued under the following conditions is:

|        |          |             |   |        |
|--------|----------|-------------|---|--------|
| Oct. 1 | Received | 1,200 units | @ | \$1.00 |
| 4      | Issued   | 600 units   |   |        |
| 10     | Received | 600 units   | @ | 1.04   |
| 17     | Issued   | 600 units   |   |        |
| 21     | Received | 400 units   | @ | 1.06   |
| 24     | Issued   | 400 units   |   |        |

- |            |            |
|------------|------------|
| 1. \$1,664 | 2. \$1,616 |
| 3. \$1,640 | 4. \$1,648 |

41. When the simple average inventory method is in use, the cost assigned to the ending inventory under the following conditions is:

|      |    |          |             |   |        |
|------|----|----------|-------------|---|--------|
| Oct. | 1  | Received | 1,200 units | @ | \$1.00 |
|      | 4  | Issued   | 600 units   |   |        |
|      | 10 | Received | 600 units   | @ | 1.04   |
|      | 17 | Issued   | 600 units   |   |        |
|      | 21 | Received | 400 units   | @ | 1.06   |
|      | 24 | Issued   | 400 units   |   |        |

1. \$624
2. \$632
3. \$618
4. \$600

42. An invoice for \$500, terms 2/20, n/30, on which there has been a return of \$50, is paid within the discount period. The amount to be paid is:

- |          |          |
|----------|----------|
| 1. \$490 | 2. \$489 |
| 3. \$441 | 4. \$491 |

43. A purchase is made from Stout, \$438, terms 2/10, n/30, f.o.b. destination. Freight amounting to \$32.20 is paid when the merchandise is received. If the invoice is paid within the ten day period the amount to be remitted is:

- |             |             |
|-------------|-------------|
| 1. \$397.68 | 2. \$460.80 |
| 3. \$397.04 | 4. \$461.44 |

44. If the interest on an interest-bearing 90-day note with a face-value of \$20,000 is \$40, the interest rate is:

- |       |        |
|-------|--------|
| 1. 8% | 2. .8% |
| 3. 5% | 4. .5% |

45. XYZ Co. discounted a \$600, 90-day, 6% interest-bearing note receivable at the local bank. The note was dated March 1 and was discounted at 6% on March 31. If the note is dishonored at maturity, XYZ Co. will have to pay the bank:
- |             |             |
|-------------|-------------|
| 1. \$609.00 | 2. \$604.02 |
| 3. \$604.98 | 4. \$613.98 |
46. A corporation issues \$100,000 of 4% ten-year bonds, dated January 1, on April 1 of the same year for \$96,490 plus accrued interest. The amount received for accrued interest is:
- |            |            |
|------------|------------|
| 1. \$4,000 | 2. \$1,667 |
| 3. \$1,000 | 4. \$3,510 |
47. The capital accounts of a corporation are:
- |                         |           |
|-------------------------|-----------|
| Common Stock (\$10 par) | \$100,000 |
| Premium on Common Stock | 30,000    |
| Retained Earnings       | 210,000   |
- The book value per share is:
- |         |         |
|---------|---------|
| 1. \$34 | 2. \$13 |
| 3. \$31 | 4. \$24 |
48. The Wall Co. issues \$400,000 of 20-year 4% first mortgage bonds on July 1, 1965. Interest is payable semiannually on July 1 and January 1. The bonds are sold for cash at 98 on July 1, 1965. The amount that most nearly represents the interest expense for 1965 is:
- |            |             |
|------------|-------------|
| 1. \$8,000 | 2. \$16,000 |
| 3. \$7,600 | 4. \$7,800  |
49. When the issuing corporation reserves the right to redeem bonds before the maturity date, the bonds are said to be:
- |                  |              |
|------------------|--------------|
| 1. retired       | 2. callable  |
| 3. indeterminate | 4. uncertain |
50. The Alexander Corporation issues \$800,000 of 20-year 5% bonds. Interest is payable semiannually on July 1 and January 1, 1965. The bonds are sold at 97 on the issue date, January 1, 1965. The amount that most nearly represents the interest actually paid during 1965 is:
- |             |             |
|-------------|-------------|
| 1. \$40,000 | 2. \$20,000 |
| 3. zero     | 4. \$44,000 |
51. Preferred stock that is entitled to receive dividend arrearages for past years before the common stock may be paid a dividend is known as:
- |                  |                  |
|------------------|------------------|
| 1. participating | 2. cumulative    |
| 3. noncumulative | 4. none of these |

52. Jones invests \$3,000 and Smith invests \$5,000 in a retail shoe business. In the absence of an agreement concerning the distribution of profits, the profits would be shared:
1.  $\frac{3}{8}$ ,  $\frac{5}{8}$
  2. 3:8
  3.  $\frac{1}{2}$ ,  $\frac{1}{2}$
  4.  $\frac{3}{3}$ ,  $\frac{5}{5}$
53. The Morehead Corporation is authorized to issue 5,000 shares of \$100 par value preferred stock and 100,000 shares of no-par common stock. The board of directors determines that the common stock sold will have a stated value of \$5 per share. Mr. Morehead conveys land with a fair market value of \$50,000 to the corporation in return for 500 shares of preferred stock. The amount of discount or premium to be recorded is:
1. \$5,000
  2. zero
  3. \$10,000
  4. \$100
54. The inventory method that assigns the earliest costs to the inventory is known as:
1. average
  2. first-in first-out
  3. last-in first-out
  4. lower of cost or market
55. When special journals are in use, a transaction that would require double posting to the ledgers is:
1. sale of merchandise on account
  2. purchase of merchandise for cash
  3. return of merchandise by a cash customer
  4. payment of freight charges on goods shipped, f.o.b. destination
56. The cost of a new typewriter (\$300) purchased for office use was recorded as a debit to purchases. The effect of the error on the income statement would be:
1. understatement of net income
  2. overstatement of cost of goods sold
  3. overstatement of net income and understatement of cost of goods sold
  4. understatement of net income and overstatement of cost of goods sold
57. King needs to borrow approximately \$1,000 at a bank. The least desirable of the four alternatives available to King is:
1. give a \$1,000, 90-day noninterest-bearing note and receive \$980 in cash
  2. give a \$1,015, 90-day noninterest-bearing note and receive \$1,000 in cash
  3. give a \$1,000, 90-day noninterest-bearing note and receive \$985 in cash
  4. give a \$1,000, 90-day, 6% interest-bearing note and receive \$1,000 cash

58. A delivery truck originally costing \$8,000 on January 1, 1962, which has been depreciated at 20% per year, is sold on January 1, 1964, for \$1,200. The amount of gain or loss is:
- |                 |                 |
|-----------------|-----------------|
| 1. gain \$3,600 | 2. loss \$6,800 |
| 3. gain \$6,800 | 4. loss \$3,600 |
59. Office salaries are paid bi-weekly and amount to \$6,000 for each bi-weekly period. The last pay period was for the two weeks ended Friday, December 25. Employees work five days each week, from Monday through Friday. The amount of the adjustment for unpaid salaries at the end of 1965 should be:
- |            |            |
|------------|------------|
| 1. \$4,800 | 2. \$6,000 |
| 3. \$3,600 | 4. \$2,400 |
60. The accounts receivable balance of a business at the beginning of the year was \$15,000; the balance at the end of the year was \$16,500. During the period cash collections from charge customers totaled \$98,000 and cash sales were \$18,000. The total sales for the year is:
- |              |              |
|--------------|--------------|
| 1. \$117,500 | 2. \$116,000 |
| 3. \$114,500 | 4. \$131,000 |
61. Jones keeps a single-entry set of books, including a cash payments book in which several columns provide for the accumulation of totals for the various payments. The cash payments book shows the following:
- |                                                        |         |
|--------------------------------------------------------|---------|
| Office expenses paid during 1965                       | \$8,200 |
| Office supplies on hand, Jan. 1, 1965                  | 350     |
| Office supplies on hand, Dec. 31, 1965                 | 200     |
| Office salaries accrued, Jan. 1, 1965                  | 250     |
| Office salaries accrued, Dec. 31, 1965                 | 225     |
| Miscellaneous office expenses<br>unpaid, Jan. 1, 1965  | 125     |
| Miscellaneous office expenses<br>unpaid, Dec. 31, 1965 | 140     |
- The amount that should be shown for office expenses during 1965 is:
- |            |            |
|------------|------------|
| 1. \$8,590 | 2. \$8,465 |
| 3. \$8,340 | 4. \$8,540 |
62. The Jenson Co. prepares financial statements at the end of each month but takes a physical inventory only at the end of its fiscal year, June 30. Utilizing the following information the company should show a computed inventory of:

|                                     |           |
|-------------------------------------|-----------|
| Inventory, July 1, at cost          | \$100,000 |
| Purchases during July, at cost      | 350,000   |
| Sales during July                   | 490,000   |
| Average gross profit on sales price | 25%       |

- |              |              |
|--------------|--------------|
| 1. \$122,500 | 2. \$112,500 |
| 3. \$82,500  | 4. \$22,500  |

63. A ledger containing the individual accounts with customers is called:
- |                               |                            |
|-------------------------------|----------------------------|
| 1. accounts receivable ledger | 2. accounts payable ledger |
| 3. special ledger             | 4. general ledger          |

64. The amount that should be reported for interest income during 1965 under the following conditions is:

|                                            |        |
|--------------------------------------------|--------|
| Interest receivable, Jan. 1, 1965          | \$ 165 |
| Interest receivable, Dec. 31, 1965         | 240    |
| Interest received during 1965              | 5,480  |
| Interest received, unearned, Jan. 1, 1965  | 460    |
| Interest received, unearned, Dec. 31, 1965 | 340    |
| Interest owed on notes, Dec. 31, 1965      | 400    |

- |            |            |
|------------|------------|
| 1. \$5,600 | 2. \$5,675 |
| 3. 5,545   | 4. \$5,425 |

65. During the year cash sales were \$25,000, cash collections from charge customers were \$56,800, and accounts receivable considered to be collectible decreased \$2,480. One account, with a balance of \$460, was determined to be worthless and was written off. The total sales for the year are:

- |             |             |
|-------------|-------------|
| 1. \$82,260 | 2. \$79,780 |
| 3. \$84,740 | 4. \$79,320 |

66. On September 1, the balance of the Accounts Payable account in the general ledger of Donald & Co. was \$4,860. The subsidiary ledger contained account balances as follows:

|        |         |         |         |
|--------|---------|---------|---------|
| Palmer | \$1,270 | Maxwell | \$1,650 |
| Harney | 870     | Burke   | 1,070   |

At the end of September the various journals contained the following information:

Purchases Journal:

|         |         |       |         |
|---------|---------|-------|---------|
| Palmer  | \$1,200 | Burke | \$1,150 |
| Harney  | 1,050   | Hogan | 1,465   |
| Maxwell | 1,080   |       |         |

Cash Payments Journal:

|         |         |                     |               |
|---------|---------|---------------------|---------------|
| Maxwell | \$1,000 | Palmer              | \$2,446       |
| Burke   | 1,070   | Palmer allowed us a | \$24 discount |

General Journal:

allowance from Hogan, \$45  
 return of merchandise to Harney, \$60  
 entry to correct an overcharge which Burke had  
 made on an invoice, \$20

The balance due to Harney is:

- |            |            |
|------------|------------|
| 1. \$1,920 | 2. \$1,860 |
| 3. zero    | 4. \$870   |

67. The balance of the profit and loss account of a corporation is closed into the:
- |                          |                              |
|--------------------------|------------------------------|
| 1. cash account          | 2. retained earnings account |
| 3. capital stock account | 4. dividends payable account |
68. An error that would cause the trial balance to be out of balance is:
- the entry to record the purchase of delivery equipment on account was omitted from the ledger
  - a new desk was purchased for cash, cash was credited but the office expense account was debited instead of office equipment
  - cash of \$100 was received from a client for services, cash was debited for \$100 and income from services was credited for \$10
  - cash of \$500 was borrowed from a bank on a promissory note, cash was credited for \$500 and notes payable was debited for \$500
69. The financial statement(s) in which Loss from Theft should appear is (are) the:
- |                     |                                                        |
|---------------------|--------------------------------------------------------|
| 1. balance sheet    | 2. statement of retained earnings                      |
| 3. income statement | 4. statement of retained earnings and income statement |
70. The financial statement(s) in which Purchase Discount should appear is (are) the:
- |                                   |                                                     |
|-----------------------------------|-----------------------------------------------------|
| 1. balance sheet                  | 2. income statement                                 |
| 3. statement of retained earnings | 4. balance sheet and statement of retained earnings |

71. The financial statement(s) in which Dividends Payable should appear is (are) the:
1. balance sheet
  2. income statement
  3. statement of retained earnings
  4. balance sheet and statement of retained earnings
72. The financial statement(s) in which Advances to Suppliers, which represent payments made to suppliers in advance of delivery of items ordered, should appear is (are) the:
1. balance sheet
  2. statement of retained earnings
  3. income statement
  4. balance sheet and income statement
73. The balance in the prepaid insurance account before adjustment is \$960. The premiums expired during the year total \$350. The amount of the appropriate adjusting entry is:
1. \$350
  2. \$960
  3. \$590
  4. \$1,310
74. Characteristics common to the prepaid insurance account are:
1. it is credited to increase the balance, it is a real account, and it appears on the balance sheet
  2. it is a liability account and it appears on the balance sheet and the postclosing trial balance
  3. it is credited to increase the balance and it appears on the balance sheet and the postclosing trial balance
  4. it is a real account and it appears on the balance sheet and the postclosing trial balance
75. Characteristics common to the supplies expense account are:
1. it is debited to decrease the balance and it is a real account
  2. it is credited to increase the balance and it is a real account
  3. it is debited to increase the balance and it is a nominal account
  4. it is credited to increase the balance and it is a nominal account