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ABSTRACT

This document is a manual that presents the supporting concepts and developmental procedures for implementing proficiency testing programs in physical education. The term "proficiency test" is defined as a test administered to a student upon his request to determine whether he meets a predetermined standard of performance and knowledge in a specific sport or physical education activity. Proficiency tests may be used (a) to establish exemption from a course that is generally required, (b) to place a student at a particular level of performance, or (c) to assist in the determination of a grade or evaluation. Under the main section, "Procedures and Policies," this document presents a discussion of the following aspects of the topic: organization of the faculty, administration of a proficiency testing program, role of the students, selection of proficiency measures, and evaluation. A bibliography is included. The appendixes are as follows: (a) "Partial List of Colleges and Universities Having Experience with Proficiency Testing Programs," (b) "Sample Forms and Notices," (c) "Sample Test Packages," and (d) "Sample Knowledge Tests." (JA)

PROFICIENCY TESTING

FOR

PHYSICAL EDUCATION

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and

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A Project of

The College Physical Education Commission

American Association for Health, Physical Education and Recreation

American Association for Health,
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Foreword

Proficiency testing in physical education, an historical concern, has taken on new significance as educational institutions move to performance-based or competency-based programs. Accountability demanded by colleges, universities and secondary schools has created the need for a reassessment of materials on proficiency testing and a framework for utilization of materials appropriate to our discipline. In addressing this demand the Physical Education Division College Commission initiated the Proficiency Testing Project and invited Dr. Rosemary McGee and Dr. Fred Drews to conduct it. The Commission requested that the materials focus primarily on the practical application of proficiency testing rather than on the philosophy behind it.

This booklet is designed explicitly for the basic instructional program. It is not a list of specific tests which can be administered in order to evaluate student progress but a guide to assist the teacher and physical education administrator in designing proficiency experiences appropriate to the goals, objectives and curricular content projected for the program. Physical educators who use this program should become aware of its relationship to such proficiency tests as the Undergraduate Record Exam (URE) and the College Level Examination Program (CLEP).

The Physical Education Division College Commission wishes to thank Dr. McGee and Dr. Drews for their outstanding contribution to the literature in our discipline.

Annie Clement
Chairman
College Commission

Roswell Merrick
AAHPER Consultant for Physical Education and Sports

Evaluating *Proficiency Testing for Physical Education*

In order to evaluate the effectiveness of this publication we are inviting comments and suggestions. If you begin a proficiency testing program as a result of reading this publication, please let us hear about your efforts. If you wish to comment in any way about the contents please write to:

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Contents

Introduction — Purposes and Principles

This manual presents the supporting concepts and developmental procedures for implementing proficiency testing programs. Over the past several years considerable interest has been generated in proficiency testing. Crowded facilities, limited budgets and administrative attempts to devise educationally sound means of reducing the pressure of rigid requirements have in no small measure caused proficiency testing programs to evolve.

We define the term "proficiency test" as a test administered to a student upon his request to determine whether he meets a predetermined standard of performance and knowledge in a specific sport or physical education activity. The difficulties that have arisen over acceptance of such a definition have been centered primarily upon the term "predetermined standard of performance." The high school or college department using a proficiency testing program must first decide just what standard of performance shall be required in order to declare a student "proficient." Once this standard of performance is determined and known, the student has a goal to which he can aspire and the faculty has agreement as to what it will accept. The general practice regarding the definition of proficiency is that the student who can perform an activity or the components of a sport reasonably well shall be considered proficient.

Proficiency tests may be used for three purposes:

1. Providing for *exemption* from a course that is generally required of students
2. *Placement* of a student at a particular level of performance in a course of instruction
3. Assistance in the determination of a *grade* or evaluation. This is usually either coupled with the presentation of the course itself or administered at a time other than in the regular course. When administered at a time other than in the course, the testing should parallel and reflect the skills and knowledges presented in the regular course of instruction testing.

A department of physical education may use proficiency testing to enhance its instructional program. Proficiency testing or any other type of testing relating to course work in physical education should have a direct relationship to the objectives of the department. If the proficiency tests are valid, reliable and objective, there is no reason that they cannot be administered so as to be effective learning experiences for the student. In addition, these tests can provide the administration of the department with greater flexibility in placing students in those activities or courses where their needs or interests are greatest. Proficiency tests are not a mechanism for the replacement of teaching. Rather they are a mechanism to provide students with the opportunity to demonstrate that they have already acquired certain sports fundamentals, knowledges and abilities and are therefore ready for advanced placement, a different

activity or exemption. One might view this as an opportunity for the student to gain additional physical education experiences beyond those he has already had and mastered to an acceptable level.

As colleagues in mathematics and English have long known, it is unwise to commit a student to the relearning of material that he has already mastered. From a practical standpoint, the student who is assigned advanced placement or exemption from a given course or activity can be more advantageously placed for instructional purposes. From a logistical standpoint, advanced placement can provide for greater administrative flexibility in the management of large numbers of students. From a philosophical standpoint, it is the wise teacher who recognizes the existing abilities of a student and capitalizes on them to further his education. It is in this context that proficiency tests for designating advanced placement are most useful.

It is the usual practice to relate the proficiency tests given in a department to existing courses in the program. However, it is conceivable that a testing program could provide for a student who has mastered an activity not offered in the program to present evidence of his ability and be given credit for his identified talents. An example of this might be the student who is a proficient skier and can present evidence of his skill to a department not located in skiing country. Surely such an individual has acquired a lifetime sport, and if it is the school's policy to give credit based on proficiency testing in other subjects, then should not this student be given credit for skiing even though he did not take a course in it at school? Such a practice would, of course, require a verification procedure.

Another advantage of the proficiency testing program as it relates to advanced placement is the provision for homogeneous grouping of the unskilled or the less skilled for instructional purposes. Experienced physical educators know that this makes for a much better learning situation for those in such classes.

In summary, then, the selection of the activities for which proficiency tests may be effectively used is strictly the business of the local department. The proficiency tests must be valid, reliable and objective and must be directly related to the tests that are ordinarily used in the department's courses. It is acceptable practice for proficiency tests to be used for exemption, grading and advanced placement, depending upon the overall objectives of the department and the school.

PROCEDURES AND POLICIES

The implementation of a proficiency testing program involves organizational considerations. The organization of the faculty, administrative procedures, the role of the student, the selection of measures and the evaluation of performance are all topics which require discussion, debate and decisions.

ORGANIZATION OF THE FACULTY

One type of faculty preparation is philosophical. The purposes and rationale for a proficiency testing program have to be explored and accepted. Once the commitment is made to the program as part of the curriculum, the organization for implementation can be begun.

Coordinator

The coordinator of the proficiency testing program is responsible for directing the program and acting as liaison between the faculty, the administration and the students. In some situations, a committee is designated to serve a similar function, with various duties such as knowledge testing, skill performance testing and record keeping assigned to the individual members. This plan shares the responsibility and permits a committee decision on policy matters. Students might also serve on this committee. Regardless of the organizational plan, the complete faculty is usually consulted on significant policy matters and informed of procedural items.

In large departments, the faculty member designated as coordinator should be vitally concerned and involved with the general physical education program and preferably should be neither the head of the department nor the head of a major division within the structure. The demands of such a responsible position will be sufficient to warrant the designation of a faculty position as coordinator, accompanied by some teaching assignments.

The coordinator should not be responsible for all activity areas nor should he be expected to be so expert in all activities as to determine test selections, prepare written tests, and decide on the cut-off points for proficient performances. He should, however, have the help of the departmental faculty in organizing the entire program. He is charged with pooling the resources and plans of the various activity committees to provide a sound and efficient proficiency testing program. Many adverse comments about proficiency programs revolve around unwieldiness, time demands, record keeping and slow follow-up with students. Many of these problems can be alleviated if the coordinator enjoys the cooperation of the faculty.

Activity Chairmen and Committees

Activity chairmen should be designated to explore and determine proficiency standards in their respective sports and activities. All or some

faculty members teaching a certain sport can be organized into an activity committee to decide on tests and standards. Some student input at this level would also be helpful. The size of the committees will be dependent on the size of the faculty and the diversity of the activity offerings.

The duties of the activity committees include preparing knowledge tests, making skill test selections, designating performance level requirements for both cognitive and motor tests, preparing and updating norms, helping with test administration and continually reviewing tests, procedures and norms.

Faculty Members

Faculty members who do not serve as activity chairmen nor on activity committees are usually involved in the proficiency program only at rush times. Once scheduled, the entire testing process is usually completed within a few days each semester. At the peak times of testing, all of the faculty may be asked to help so the testing procedures may be conducted efficiently. Each teacher should be able to discuss the proficiency program with students and help them understand its philosophy and procedures.

ADMINISTRATION OF A PROFICIENCY TESTING PROGRAM

Step Outline

1. Have faculty discussions on the philosophy of a proficiency program.
2. Confer with students and with departments in other disciplines already using proficiency alternatives as well as with other schools.
3. Make tentative decisions at the departmental level on the type of proficiency program, making sure it is in harmony with institutional academic regulations.
4. Clear the proposed proficiency testing procedures with the administration, including deans and registrar.
5. Finalize all testing procedures and coordinate with appropriate school officials.
6. Draw up a final statement of philosophy and policies and make it public, using the student newspaper, bulletin boards and in-class announcements.
7. Schedule testing dates and reserve facilities. Publicize dates and places.
8. Schedule personnel for test administration duties.
9. Administer tests, giving feedback on both knowledge and skill tests immediately, if possible.
10. Follow up with records to the student and to the appropriate records personnel (i.e., registrar or guidance counselor).
11. Evaluate the entire process and make decisions and recommendations about future operations.

Selection of Activities

There may be activities in the program which the faculty would consider inappropriate for proficiency testing. The answers to some of the following questions will help set guidelines and delineate a policy: Should the activities available for the proficiency plan include only those taught in the curriculum? If not, what other activities should be included? Should the activities include only the vigorous lifetime sports? What are they? Should some of the courses offered in the curriculum be excluded from the proficiency options, e.g., fundamentals classes, remedial classes, recreational classes?

Frequency of Testing

The frequency of testing sessions is a policy matter which must be determined for each semester or academic year. The various plans range

from continuous testing to once-a-year administration. The deadline for meeting physical education requirements will influence the policy on frequency. If students have all four years of their high school or college time to meet physical education requirements, the time push is less frantic. If, however, the requirements must be met within the freshman or sophomore years, opportunities to be tested must be provided more frequently.

If the school is small and informal in its organization, a student might be allowed to indicate to an instructor at any time his desire to take a proficiency test. The instructor can either administer the test or refer the student to the appropriate faculty members. This plan, in effect, is a continuous scheduling of proficiency tests on demand, which is convenient for the student but can become very bothersome to the faculty members.

The school could schedule a block of two or three weeks within each semester/quarter to provide proficiency testing in a few activities—perhaps the ones taken by most students at that time of year.

The school could schedule proficiency testing opportunities in three or four activities each term, using a rotation plan over a two-year span.

The school could schedule one block of time each year for all proficiency testing. The coordinator would include all activities which qualify for the proficiency alternative and schedule enough faculty and facilities to complete the concentrated thrust efficiently. This plan seems to be more useful in large schools.

Experience with a proficiency program will help determine students' needs for testing opportunities. The frequency of administration would therefore fit the needs of the local situation.

Procedures for Testing

Procedural matters are usually organized by the coordinator but could be delegated to other faculty members.

1. Notify students of testing times, method of operation and activities to be offered. Use class announcements, campus newspaper, printed notices and bulletin boards.
2. Tell students how and when to make application to take proficiency tests.
3. Organize the administration of cognitive measures. Provide adequate copies of knowledge tests in each activity as indicated by application forms. Have sufficient faculty to expedite scoring of papers.
4. Advise student immediately about his performance on the knowledge test and further steps he can take related to the motor performance test.
5. Organize the administration of skill assessments. Facilities should be reserved and areas marked ahead of time. Score cards should be available, directions clear and standardized and the order of testing designated.
6. Evaluate performance while the student is still present and note the results on his proficiency record.

7. Refer the student either to the activity chairman or to the coordinator for final decision on his competence to meet the proficiency standards. If the decision cannot be made immediately, collect the materials and inform the student that the information will be evaluated by the activity chairman and he will be notified in one to three days. An alternative would be to post the results on a bulletin board.

8. Be sure the student is aware of appeal procedures and help him activate these procedures when needed.

9. Thank the student for electing to avail himself of the proficiency route and ask for his comments and reactions. Make note of his remarks for further implementation to improve the program.

10. Complete the necessary records for the student and for the appropriate record-keeping officials.

General Policy Suggestions

Some of these policies may not fit the local situation, but perhaps they will bring to mind points which should be discussed.

Identification

Students will be required to present their student identification and application form for all phases of the testing.

Concurrent Enrollment

1. Proficiency tests will be administered only to students who are currently enrolled in physical education, except by special permission of the coordinator.

2. A student may not take a scheduled proficiency test for exemption if currently enrolled in that activity.

3. Examinations may not be taken in an activity the student has taken for credit previously. A student who anticipates taking a proficiency examination should delay enrolling in that activity until he has had an opportunity to take the tests.

Number and Frequency

1. A student may not take a scheduled proficiency test more than once in a particular activity.

2. No more than two written examinations or activity tests may be taken during any one testing period except by special permission of the coordinator.

Credit and Penalty

1. Academic credit will be given for passing a proficiency test.

2. There is no penalty for failing a proficiency test.

3. A failure in either the written or performance test will not appear in the official transcript of course work nor will it have any bearing on the grade point average.

ROLE OF THE STUDENTS

Communication is important if students are to understand and appreciate a proficiency plan. The purpose of a proficiency plan is to provide meaningful levels of instruction and greater self-determination for students, and this underlying philosophy should be known to them. Why is a proficiency plan a part of the thrust of this department? What meaning does it have for the student? These questions are answered in light of the departmental requirements and the place of physical education in the curriculum.

The first contact with students about the program sets the tone for implementing the whole concept. Explanations by faculty members in small classes, brochures, advising conferences, bulletin board announcements, school newspapers and seminars with student leaders can be used to help the students appreciate the implications of the proficiency plan. Only after this is accomplished is it meaningful to proceed to the more routine procedures.

A well-run proficiency program does not dehumanize students by herding them through mass testing experiences replete with frustrations and long delays about results. Belief in proficiency testing implies belief in students and a desire to help them know more about their competence level in physical activities and therefore about themselves. Full understanding of the procedures, use of small group or individual contacts, pleasant manner, good rapport and fairness help to make the proficiency program meaningful. The students need to know the requirements and the alternatives provided by the proficiency route. Every effort should be made to eliminate tensions and delays. Thorough communications and good plans will foster positive attitudes and cooperation.

Once the students know about the proficiency program in general, there are specific procedures which they should follow:

Apply to take the tests. The student fills out a form with his instructor or the coordinator or at the department office. (Sample copies are in Appendix B.) This will designate his commitment to a certain activity and to a specific time. The specifications of the test and study sources should be available when he makes application, but having this information before that time would be preferable, to help him decide if he is ready to take the test. The room location and his supply needs should be listed on the application form. The cost, if any, should be made known to the student.

Take the knowledge test. If the program is properly staffed, the test should be graded immediately. The results are interpreted as to whether the student now qualifies to take the performance part of the test. This information is recorded on the Proficiency Form (see Appendix B) and

the student is notified about the block of time for the skill assessment or given a definite appointment.

Take the skill test. The specifics of the motor assessment should have been made known to him earlier. Depending on the activity, these may include skill tests, subjective ratings and/or game play. Equipment, dress and partner specifications, and weather alternatives are clearly stated. The student presents the Proficiency Form to the instructor. He performs the skill measures and the skill evaluations are added to the form and explained to him. His completed form is referred to the activity chairman who either makes the final judgment at that time or tells him when he will be notified.

Receive complete records. The completed form is forwarded to the proper persons, including the student and record-keeping officials.

SELECTION OF PROFICIENCY MEASURES

Areas of Testing

Much of the writing on proficiency testing in physical education speaks of the necessity to assess competence in both skill and knowledge. A few programs are described which utilize only a knowledge assessment; the assumption is that adequate cognitive understanding indicates at least some degree of skill development. A few programs utilize only a motor measure, usually based on both objective skill testing and subjective game play. Some consider these two separate aspects of the motor performance measure and thus define three areas in all: knowledge, skill and performance.

The philosophy of most physical educators reflects a commitment to provide motor, cognitive and affective learning experiences. The rationale of most proficiency programs sacrifices measurement in the affective areas, hoping that affective learning will be a corollary to attaining sufficient motor and cognitive development to satisfy proficiency standards. This is one point where the proficiency program is not parallel to the class experience. In the latter, affective learnings can be planned for and included as part of the course objectives. Many physical educators would say not that the affective areas of attitude, self-concept and leadership are less important but merely that they cannot be tested with the same assurance and efficiency as the motor and cognitive areas. It is hoped that accomplishing competency in golf, for example, is accompanied by appreciation for the game, for the player as a golfer and a competitor, for the golf setting in nature and for golf courtesy.

The majority of programs use both skill and knowledge assessment; these are discussed below. The other variations which have been mentioned may be appropriate in specific situations. These are decisions for the faculty.

Motor Assessment

Both objective and subjective measures are appropriate. Used in combination they can give a more complete picture of skill competence. The specific tasks should be made known to the students. In tennis, for example, the students might be asked to take the Wisconsin Serve Test and the Broer-Miller Forehand-Backhand Drive Test and to be subjectively evaluated on game play in either a singles or a doubles setting. The activity chairman should make these decisions jointly with the staff involved with the activity. This will necessitate examination, study and trial of the many tests available in order to make the final choices. Some

schools have found subjective ratings alone very dependable but have continued to use objective measures also, thus eliminating an overemphasis on the subjective and providing a more comprehensive picture of the student's performance in case there is some question about the final judgment. Many challenges can be eliminated if the students feel they are adequately observed by competent viewers and if they know they have an appeal to the chairman of the activity. The staff, on the other hand, may prefer to have only one person giving subjective ratings since less staff time is required. Many schools will find they have able and competent students who can assist with skill test administration while the more practiced eyes of the instructional faculty can be used for subjective ratings.

Measurement texts and research reports should be consulted to locate suitable tests which fit the local situation. The Appendix materials show some sample programs of skill assessment. Care should be taken that the tests sample all the essential aspects of the activity and that they not be so abbreviated that they insult the students.

Many of the individual sports such as golf, archery and bowling have a built-in skill assessment. Actual performance scores could be used either exclusively or in conjunction with subjective ratings.

A combination of objective skill testing and subjective ratings is desirable for sports involving a small number of players. Tennis, badminton, and fencing are examples.

The team sports involve so many players that ratings are time-consuming and often unreliable. Carefully selected skills tests are adequate in these sports unless ample time, space and staff are available to stage actual games. Then a supplementary subjective rating might be justified and beneficial.

Competence in many activities must be judged almost completely in a subjective way. Gymnastics, diving, skating, dance forms and body mechanics are examples. The raters should be well qualified and the expected performance well defined for the students.

Cognitive Assessment

The various activity chairmen and committees should be responsible for the preparation of knowledge tests. They can be constructed locally, obtained from other institutions using similar proficiency procedures or gleaned from activity manuals and research reports. Locally developed tests are probably more appropriate because they fit the content which the activity committee has agreed upon. However, it is no longer necessary to use hastily prepared tests. Many schools have scientifically developed knowledge tests which they are happy to share if adequate acknowledgments and protections are provided. There are still few standardized tests covering the various sports on the commercial market.

The knowledge test should not be a trivial 10-minute experience which insults students and wastes their time. A few true-false questions of a recall type on rules and dimensions do not constitute an adequate cognitive measure. A good knowledge test will take 45 to 60 minutes

to complete and will cover such basic aspects of the sport as skill techniques, strategy and principles of movement along with a lesser emphasis on rules, equipment and safety. The test should measure the more sophisticated levels of cognitive assessment, that is, understanding, application and analysis. The bibliography cites sources of knowledge tests and Appendix D provides some sample tests. A suggested content balance table is provided here as a proportional guide. The nature of the activity and the level of cognitive competence desired will indicate appropriate adjustments.

Content Areas	Cognitive Levels*			Total %
	Remembering	Understanding	Thinking	
Skill Techniques		15	10	25
Strategy and Tactics		10	15	25
Procedures and Conduct	5	5		10
Rules	10	10		20
Terminology		5		5
History	5			5
Equipment	5			5
Safety		5		5
Total Percentages	25%	50%	25%	100%

*Terminology for the cognitive levels is from the Educational Testing Service.

Using the levels when constructing test items ensures that not all questions are of the simple recall type. Consequently the test measures a level of knowledge congruent with more advanced skill and accompanied by appreciation for the activity.

Careful test selection and development in both the motor and cognitive areas provide a worthy exercise for the faculty and upgrade the whole proficiency program. They also enhance the opportunity for the proficiency program to be a positive experience for the students, and it is, after all, for the students' good that the program is provided.

Levels of Proficiency

Most schools contemplating or operating a proficiency program have little difficulty with the rationale for the program or in the administrative procedures. The crux of the matter lies in deciding what level of performance demonstrates proficiency. The assessment measures are selected to cover skill, performance and knowledge; the cut-off point designating proficiency differs from school to school depending upon the local situation and philosophy.

Some departments equate the level of performance expected to fulfill a proficiency standard with a selected level of performance in a beginning class. The grade scale is the same; whatever is passing performance for the course would be satisfactory for meeting the proficiency level.

Some departments require a "proficient" performer to be above average in overall competency, somewhat of an expert. They do not equate proficiency with a *minimum* performance concept. If the department did equate proficiency with a level of class performance, it would designate a high intermediate or advanced class performer, in the "B" area of the traditional grade scale, as proficient.

Still other departments use the proficiency program for placement instead of for exemption purposes. In this case, the proficiency program is not an avenue through which the physical education requirement can be reduced.

The curricular trend in the general physical education program seems to be away from a completely required program to proficiency alternatives within the required program and even to an elective program. The elective program offerings are generally the relevant activities for students today, including the "vigorous" lifetime sports. Lifetime use implies more than a superficial degree of exposure and seems consistent with setting the proficiency level above a minimum standard of performance. A review of many proficiency programs in the country indicates that a majority specify a "B" level of performance.

The decision about the proper cut-off points to designate proficiency must be made by the local departments in keeping with their philosophy and purposes. The decision may be influenced by whether a partial or total requirement is affected by the proficiency program. It may be based on the economics of space, time, faculty and enrollments. The final determination may be resolved in the debate about depth or breadth of student involvement in physical activities. There is no right or wrong; the decision must fit the local school, its students and its faculty.

Various Plans for Determining Proficiency

Skill and knowledge have been identified as the two commonly used components of an assessment program. Occasionally the skill area is

divided into (1) skills testing and subjective ratings and (2) ratings of performance in the activity. There are several plans for use of the various factors in determining level of proficiency.

Sequence Plan. The most common plan requires a passing grade in the knowledge assessment before taking the skill assessment. Once both tests are satisfactorily performed, the student is declared proficient in that activity and eligible to exercise whatever options that classification affords him. Using the written test to screen candidates is an economical administrative route because of the relative ease with which knowledge tests can be given compared to performance measures.

Determining passing level on a knowledge test is up to the activity chairman and committee. Absolute values are meaningless because the difficulty of the tests varies. Assuming a 100-point test, different department policies state that achievement should be at 80 points, at the C level, at the 60th T-Score, at the 70th percentile, etc. Designation of these cut-off scores is as vague as the cut-off levels in skill factors.

Following are examples of the requirements for (1) advanced placement and (2) passing a conditioning class which might be equivalent to proficiency in some institutions.

Examples:

(1) Grading System:

Written—Applicant must make a minimum score of 80 to be eligible for practical test.

Practical—The student will execute the basic skills involved in an activity and be rated on each of these skills. A composite score on these skills, averaged for the three judges, must be 80 or above in order to pass.

(2) On passing the written exam with a 70 or above, you will be expected to perform the following items:

1. Execute a 10-second flexed arm hang.
2. Execute 30 bent-knee sit-ups in one minute.
3. Run a mile and one-tenth in 12 minutes.

The sequence plan is based on the premise that demonstration of some knowledge is essential before it is justifiable to pursue a proficiency classification.

Weighted Plan. The knowledge and skill factors are allotted proportional importance. The weightings are designated and specific. Consequently they reflect the philosophy of the faculty or the activity committees about the relative importance of each factor in arriving at a proficiency decision.

1. One plan is to assign the knowledge area a weighting and then to carry it over into the overall assessment. The cut-off on the knowledge test may have been 80 points or 70 percent or whatever, but once achieved that passing performance is allotted so many points to combine with the practical assessments.

Example:

The procedure in administering the Weight Training Proficiency Test is as follows:

1. Written knowledge examination	20 points
2. Practical performance examination Applicant will have periods of not less than 10 minutes to warm up and prepare for test and to rest between items.	
Group 1 Test (one-minute rope skip or 18" vertical rope jump)	20 points
Group 2 Test (one-hand upright curl or two-hand upright row)	20 points
Group 3 Test (hanging leg raise or two-minute sit-up)	20 points
Group 4 Test (two-hand upright press or two-hand supine press)	20 points
	100 points

A candidate will be considered proficient in weight training upon attaining a score of not less than 85 points.

Note: Norms are available so the student can convert his performance to the point values.

2. Another variation is to assign arbitrarily one-third weightings to the knowledge, skill and performance areas. The levels of attainment in each of the three areas are converted to comparable values and then weighted one-third. A composite score cut-off point is set.

Example:

Knowledge Test	1/3
Skill Tests and Ratings	1/3
Game Performance	1/3

A student who assembles 80% of the composite points will be declared proficient.

This plan places 2/3 emphasis on the motor aspects and 1/3 emphasis on the cognitive aspect.

3. Another version of the weighted plan is to place equal emphasis on the knowledge and skill areas. Knowledge measures are converted to T-Scores and the total skill assessment is converted to a composite T-Score. These two T-scores are either added or averaged. A cut-off T-Score has been set. This plan proceeds on the premise that attainments in skill and knowledge are equally important for the performer to be declared proficient in an activity.

The variations in possible weightings are numerous. They could be set by the various activity committees or by the entire faculty as a general

policy. The rationale behind the weightings should be reviewed from time to time and alterations made if appropriate.

The weighted plan is based on the premise that the relative importance of each aspect of the assessment has been decided upon and set proportionally.

Collective Plan. This plan identifies all the measures to be given to the student with no attempt to assemble the performances into a composite index. The measures are, in effect, a series of performance standards which all must be met for the student to be declared proficient. The built-in demands of the performance measures reflect the level of proficiency sought.

Examples:

Golf: The student must pass the written test, which is objective and based on material found in the *Wm. C. Brown Golf Booklet.* The practical test consists of: driving for distance, chipping for accuracy, putting for accuracy and subjective analysis of swing.

Bowling: The student must pass a written knowledge test and bowl an average of 115 on 3 games.

Apparatus:

Written Exam:

1. Knowledge of basic mechanics associated with gymnastics
2. Knowledge of terms associated with gymnastics

Reference: *Men's Gymnastics*, Gordon Maddux, Goodyear Physical Activities Series, Goodyear Publishing Co., Pacific Palisades, Calif., 1970.

Skills Exam:

1. Basic skill on three of the following: parallel bars, horizontal bar, side horse, rings. The skills should be demonstrated in a routine which includes a mount, a minimum of three moves and a dismount.

Handball:

Written Exam:

References, *Handball*, Pete Tyson; *Four Wall Handball Rules*, Official United States Handball Association.

Skill Exam:

1. Demonstrate three of the four basic strokes; sidearm, overhand, low sidearm, underhand
2. Service test – low drive serve, lob serve, three wall serve
3. Demonstrate four basic shots – kill, pass, ceiling, three wall shot
4. Rally with instructor

Volleyball:

Knowledge Examination:

Will cover the material found in *Power Volleyball*, Thomas Slaymaker and Virginia Brown, W. B. Saunders Co., Philadelphia, 1970. All questions will be objective.

Skill Examination:
Passing
1. Overhand
2. Underhand
3. One hand (over and underhand)
Setting
Spiking
Service (your choice of style accuracy will be most important)
Game, including an actual game-type scrimmage

Track and Field:

1. A written examination on terminology, training methods, skill techniques, safety precautions and officiating procedures passed with a score of 85 or better
Reference Texts:
Beginning Track and Field, John M. Cooper, Wadsworth Publishing Co.
Track and Field for College Men, Robert E. Kennedy, Saunders Physical Activities Series
Track and Field, Forman and Husted, Wm. C. Brown Co.

2. A skills test consisting of an acceptable performance in three of the four categories. Only one event can be selected per category. Acceptable performances are listed below.

Sprinting Events:	100 yard dash	11.7 sec.
	220 yard dash	25.5
	440 yard dash	60.0
	120 low hurdles	15.9
Throwing Events:	Shot put	30' 10"
	Discus	82'
	Javelin	112'
Jumping Events:	Long Jump	17' 8"
	Pole Vault	9' 0"
	High Jump	5' 0"

Distance Running (a required category):
a 1½-mile run in 9:30 or under.

The collective plan is based on the premise that the essential proficiency objectives have been identified and that suitable performances have been exhibited to meet each. There is no attempt to accumulate points or to decide on the relative importance of each task.

Other Evaluative Considerations

1. Occasionally proficiency decisions are made on the basis of either knowledge tests alone or skill measures alone. This is sometimes the practice when a highly qualified coach feels his observations are sound enough to make such judgments. This plan might be appropriate for

certain activities within a department even if it uses both skill and knowledge measures for proficiency decisions in other activities.

2. Many proficiency schemes have a built-in structure for appeals, made either to the activity chairman or to the coordinator. Usually appeal is made by the student who has come within a few points of qualifying for the proficiency rating. Some students play well but are less able to perform in isolated skill testing situations or are highly skilled but fail the written test. Personal well-being and day-to-day variance in performance influence reliability. These factors indicate that it is appropriate to include an appeal route.

3. Norms for deciding levels of attainment are usually separate for men and women but do occasionally appear in common tables. The nature of the activity and the local instructional situation would indicate the appropriateness of the normative population. Needless to say, norms should be prepared with data from local students as soon as sufficient data are available, and they should be updated continually. The use of a computer is recommended in schools large enough to warrant such a procedure.

4. The proficiency cut-off points may or may not be the same as those used for a course in the same activity. There is no claim, however, that proficient performance is equivalent to the educational experience.

5. Results of proficiency tests are usually recorded as Pass or Fail. Unless the grade is to be counted in the grade point average, which is not the usual practice, there is no need for the performance to be scaled along the full grade continuum. A definite level of performance is established and the student either meets that level or does not.

6. Some schools equate participation on varsity teams with a proficiency standard. The motor performance standards could probably be met easily, but the knowledge assessment should be administered as well if the requirements for all students are to be standardized.

Conclusion

A proficiency testing program which is carefully conceived, thoroughly prepared and well conducted will result in sound educational experiences and decisions. It should be a viable route for students to take. It should be noted, however, that when physical education courses are offered in sufficient variety in a pleasant learning environment the number of students seeking to reduce their requirement is very low. In a well organized and appropriately taught physical education curriculum, the proficiency testing program will serve students as a challenge and as an opportunity to increase the span of their physical education experiences.

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APPENDICES

Appendix A

Partial List of Colleges and Universities Having Experience with Proficiency Testing Programs

Arkansas State University, Fayetteville
Beloit College, Beloit, Wisconsin
Bowling Green State University, Bowling Green, Ohio
Denison University, Granville, Ohio
Furman University, Greenville, South Carolina
Grinnell College, Grinnell, Iowa
Memphis State University, Memphis, Tennessee
North Carolina State University at Raleigh
Ohio State University, Columbus
State University College, Plattsburgh, New York
State University of Iowa, Iowa City
University of Georgia, Athens
University of Missouri, Columbia
University of North Carolina at Greensboro
University of Tennessee, Knoxville
University of Texas, Austin
University of Washington, Seattle
Wake Forest University, Winston-Salem, North Carolina
Winthrop College, Rock Hill, South Carolina

Note: Materials from some of these institutions are included in this book. These schools may be contacted for additional aid in implementing a proficiency testing program.

Appendix B

Sample Forms and Notices

MEMORANDUM

TO: All Physical Education Instructors: To be read to all physical education classes at the first class meeting.

FROM: J. B. Edwards, Test Coordinator

SUBJECT: Proficiency Testing by examination for Badminton, Swimming, Handball, Squash, Tennis, Track and Field, Body Mechanics, Fencing, Modern Dance and Weight Training.

Please inform your students of the following points of information.

How to Register	Student may register for proficiency tests in one or two sports by filling out a registration form for each sport test.
Where to Register	Carmichael Gymnasium Main Office, Monday, October 30, through Friday, November 3, 3:00 P.M. – 5:00 P.M.
Written Examinations	Written examinations for the above-mentioned sports will be given on Tuesday, November 7, and Wednesday, November 8, 7:00 P.M. in room 213, Carmichael Gymnasium.
Skills Examinations	Students who pass the written examination must make an appointment for skills testing in the Physical Education office. The dates for skills testing will be Friday, November 10, through Friday, November 17, 4:00-6:00 P.M.
Performance Testing	Some sports require game participation to be observed by the test administrator. In these sports it may be desirable to bring a playing partner. Normally, this phase of testing follows the skills test.
Results	Students who are declared proficient in the sport tested will be notified by November 22.
Bulletin Boards	All students interesting in proficiency test regulations should consult the bulletin boards for specific details.

MEMORANDUM

To – Faculty Advisers

From – School of Health and Physical Education

Regarding proficiency tests for Physical Education

Any student who has not completed his one year of required physical education may remove the requirement by taking a proficiency test at the high intermediate level in any one of the following activities: archery, badminton, ballet, basketball (men), basketball (women), bowling, fencing, folk dance, golf, gymnastics, modern dance, softball (men), soccer (men), swimming, tennis, volleyball.

The examination will be administered in two parts, written and skills. If the student passes the written test, he will make an appointment to take the skills part of the examination. These tests are scheduled on the following dates:

Written – Friday, August 25, from 8:00 to 4:00, Room 22 Coleman (at student's convenience). Grades will be available from 9:00 to 4:00 on Saturday, August 26, in the same room.

Skills – Students who pass the written test will be given an appointment to finish the testing on Friday, September 1, or Saturday, September 2. These appointments will be made as the student finds out about his grade.

Students may pick up applications to take proficiencies during pre-registration in Office #2, Coleman Gymnasium. At that time they will be given a general statement of expectations on both the knowledge and skills tests.

PROFICIENCY REGISTRATION FORM
CONDITIONS OF PROFICIENCY TESTING AGREEMENT

1. I hereby apply to take the_____proficiency test.
2. I have never taken the proficiency test for which I am applying.
3. I am not presently enrolled in the course which this examination covers.
4. I am a currently enrolled student in a physical education course.
5. I will bring my student identification card to all phases of this proficiency test.
6. I realize that the abovementioned test may be taken only once; by taking the test now, I am exercising my single option to obtain proficiency for this course by test.
7. I will attend the knowledge examination for this course on _____197 (date) at _____ (time) in Carmichael Gymnasium _____. (room)

_____, _____
Student Signature Date

PLEASE PRINT

Student's Name: _____
Last First Middle

Social Security Number: _____

Campus Address: _____
Room Dormitory

Home Address: _____
Street City State Zip

Local Phone Number_____

Knowledge Test Grade _____ Instructor_____

Performance Test Grade_____ Instructor_____

Skills Test Grade _____ Instructor_____

Proficiency Rating __Yes__ __No__

_____
Activity Chairman

Physical Education Proficiency Application

Please Print

Name _____
Last First Middle

Social Security Number _____

Campus Address (if known) _____
Dormitory Room Phone

Home Address _____
Street or Route City State Zip

Home phone number _____

I hereby apply to take the _____ proficiency test.
(name of activity)

I will attend the knowledge test on _____ anytime from 8:00 a.m. to
(date)
4:00 p.m. in Room 22, Coleman Gymnasium.

_____
Student signature

_____
Date

If you are pre-registering at UNC-G, please leave this form with your adviser.

If you receive these materials by mail, please return this blank IMMEDIATELY to: School of Health and Physical Education
UNC-G, Coleman Gymnasium
Greensboro, North Carolina 27412

STATE UNIVERSITY COLLEGE
Plattsburgh, New York

Department of Health, Physical Education,
and Recreation

SKILL PROFICIENCY TESTS
APPLICATION FORM

Students Names _____

Physical Education Class _____ Day & Hour _____

Skill proficiency tests are given in the following activities. Please check the sports in which you feel competent to take a proficiency test. (Each student is limited to two activities.)

__Archery __Bowling __Handball __Tennis

__Badminton __Golf __Squash

Please check the appropriate statement below:

__I feel I can pass the swimming test and would like to take the test at this time.

__I do not feel I can swim well enough to pass the swimming test at this time.

APPOINTMENT FOR PROFICIENCY SKILLS TEST

Please keep this appointment. This is the only time you may take this test. Successful completion of this part of the test is necessary before you may be exempted from your Physical Education requirement.

Please report at _____ on _____ for a skills
(time) (day and date)
test in _____.
(activity)

(For OUTDOOR activities, in case of rain on Friday – please report on Saturday at _____.)

Place: _____

Bring with you: _____
(equipment)

- -

NOTICE TO REGISTRAR

Office of the Registrar
Office of the Dean of Academic Advising

_____ _____ has removed his/her
(Name) (Number)
requirement in Physical Education by proficiency examination.

Date _____

Signed _____
Dean School Health, Physical
Education and Recreation

UNIVERSITY OF GEORGIA
Department of Physical Education for Women
Proficiency Test Results

TO: _____ DATE: ____

Listed below is the result of your written proficiency test(s) in physical education:

ACTIVITY	PASSED	FAILED
Bowling		
Golf		
Swimming		
Tennis		
Volleyball		
- - - - - - -		
Badminton		
Basketball		
General		
Gymnastics		
Swimming		
- - - - - - -		
Archery		
Fencing		
Riflery		
Softball		
Swimming		

If you passed the written examination you should report for the practical proficiency test. You will be notified by the activity chairman of the results of this test.

PROFICIENCY EXAMINATION IN_____

WRITTEN EXAM DATE_____TIME_____PLACE_____

Name (last, first, middle) Local Phone & Address	College	Student Number	Written	Practical	Results	Recommendation

Activity _____ Date of Practical: _____

Chairman: _____ Place of Practical: _____

Quarter: _____

Name	Written	Practical	Recommendation
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
13.			
14.			
15.			

Appendix C

Sample Test Packages

Archery

Written Test - Knowledge and understanding of archery terminology, the techniques of target shooting, clout shooting and field archery (including common errors and how to correct them), care and repair of equipment, tournament rules and scoring

Skills Test – Demonstration of the techniques of target shooting and field shooting. Shoot a Junior Columbia Round (24 arrows from 40,30, 20 yards) with a minimum score of 600

Badminton

Written Test - Rules, strategy, form and execution of all strokes

Skills Test – Demonstration of ability to execute strokes (1) in a playing situation and (2) by returning shuttlecocks hit by a tester

Ballet

Written Test – Comprehensive knowledge and understanding of the techniques and terminology in classical ballet including the Italian, French and Russian Schools

Skills Test – Execution of the basic techniques of barre and centre-floor of classical ballet

Basketball (men)

Written Test – Knowledge and understanding of terminology, strategy and fundamental rules of basketball

Skills Test – One full season of varsity participation or demonstration of the fundamental skills of shooting, dribbling, passing, rebounding and of defensive skills in a controlled scrimmage

Basketball (women)

Written Test – Ability to apply knowledge of the rules and strategies related to a game situation and ability to identify the basic mechanical principles needed to understand the efficiency of selected basketball skills

Skills Test – Demonstration of proficiency in selected basketball skills such as shooting, dribbling and passing and demonstrated ability to move in relation to partner, opponent and the ball

Bowling

Written Test – Comprehensive knowledge and understanding of bowling with an emphasis on rules and regulations, style and mechanics of ball delivery and the strategies for strikes, spares and splits

Skills Test – Bowl five games obtaining the following average: women - 135, men - 145. (Preference of the student will determine the style of delivery. Personal or "house" balls may be used.)

Fencing

Written Test – Fencing situations that might arise in a bout; appropriate strategy or right of way

Skills Test – A bout (4 hits for women and 5 hits for men) to demonstrate knowledge of skills, right of way and strategy. The student will be asked to judge a bout sequence.

Folk Dance

Written Test – Demonstrate knowledge of a) fundamental steps used in folk dancing, b) European and American folk dance styles as reflective of the country's cultural, historical and geographical traits

Skills Test – 1. Execution of folk dances from at least seven countries. Choice may be made by the examinee from material available.
2. Demonstration of folk dance steps most frequently used in international folk dance

Golf

Written Test – Rules basic to accurate scoring and correct playing procedures, golf etiquette and safety, common terminology, scoring of match and medal play competition, techniques for execution of full swing and approach shots, club selection during play

Skills Test – Average score of___or below for women or___or below for men on 3 nine-hole rounds of play. White tees will be used and scores will be taken on the best two of the three rounds. (If scores average as stated for two rounds, the third round need not be played.)

Gymnastics (men and women separate)

Written Test – Comprehensive knowledge and understanding of the skills and terminology used in Olympic or formal gymnastics events

Skills Test – Women–score of 7.0 or better in a high intermediate routine in any event published in the current *DGWS Gymnastics Rules Guide* or equivalent
Men–score of 7.0 or better in a high intermediate routine of any event published in *Gymnastics for Men*, Eric Hughes (1966) or equivalent

Modern Dance

Written Test – Comprehensive knowledge and understanding of the history, techniques and skills associated with modern dance

Skills Test — Performance of warmup techniques including plies, releves, bounces, walks and locomotor sequences as well as the ability to do a short movement theme

Soccer (men)

Written Test — Knowledge and understanding of terminology, strategy and fundamental rules of soccer

Skills Test — One full season of varsity participation or demonstration of fundamental skills, heading, different styles and types of kicks, blocking, tackling, trapping and the demonstration of skills in a controlled scrimmage

Softball (men)

Written Test — Knowledge of rules, fielding, batting, baserunning techniques as well as strategy associated with both "fast pitch" and "slow pitch" softball

Skills Test — Demonstration of good fielding, batting and baserunning techniques

Tennis

Written Test — Knowledge and understanding of the terminology and rules of tennis, stroke patterns and application of strategy to both singles and doubles play

Skills Test — Demonstration of skills in playing one set as well as scored skill testing of ground-strokes, volley and service

Volleyball

Written Test — Knowledge and understanding of terminology, skill technique, strategy and rules

Skills Test — Performance rated by judges on each of the following skills: forearm pass, volley, spike, serve

Appendix D

Sample Knowledge Tests

VOLLEYBALL KNOWLEDGE TEST†

DIRECTIONS: BEST ANSWER MULTIPLE CHOICE

Read each question carefully. Select the one item that best answers the question. Place an X in the proper column on the answer sheet. Do not write on the test copy

1. Which serve is the easiest to receive and why?
   A. the floater serve -- has no spin
   *B. the underhand serve -- has a high trajectory
   C. the overhand serve -- has greater rebound due to greater speed
   D. the roundhouse serve -- has a low trajectory

2. Which situation describes a double hit?
   A. two players block a spiked ball.
   *B. a served ball rebounds off a player's arm and is then volleyed by the same player.
   C. two players hit the ball over the net at the same time.
   D. the same player contacts the ball twice while it is on his side of the net.

3. What is an ace serve?
   A. a served ball that is returned out of bounds
   B. a served ball that is hit into the net
   C. a served ball that hits the net and falls into the opponent's court
   *D. a served ball that lands within the opponent's court before being touched by a receiver

4. Which statement gives insight into successful spiking technique?
   A. spike the ball with the fist for greater control.
   *B. spike the ball with an open hand for greater control.
   C. spike the ball for a one-foot takeoff when at all possible.
   D. spike the ball with a cupped hand for greater control.

5. How should a player execute the bump pass?
   *A. knees bent, hands together, arms straight
   B. knees bent, hands together, arms bent
   C. legs straight, hands together, arms straight
   D. legs straight, hands together, arms bent

†School of Health, Physical Education and Recreation, University of North Carolina at Greensboro. Used by permission.

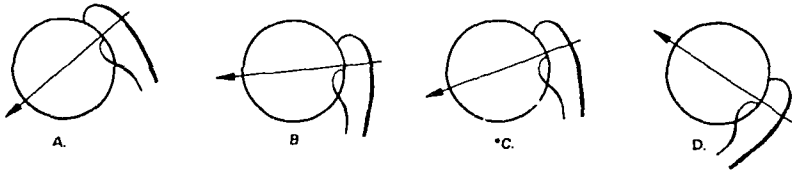
*Indicates correct answer.

6. When should a blocker jump?
   *A. just after the hitter leaves the floor
   B. just as the hitter leaves the floor
   C. just before the hitter leaves the floor
   D. just as the hitter contacts the ball

7. Which serve is used most frequently by highly skilled players?
   A. roundhouse serve
   B. overhand spin serve
   *C. overhand floater serve
   D. underhand serve

8. Where will a short hitter usually want his set and why?
   A. fairly close to the net so that the hitting angle will be sharp
   B. fairly close to the net as his height decreases the closer to the net he gets
   C. not too close to the net so that there is no chance of a net foul
   *D. not too close to the net as his height increases the farther away from the net he gets

9. Which diagram best describes the position of a spiker's hand and the direction the ball will travel when hitting a deep set from the '0' line?



10. What is the common error for "no action" on the overhand floater serve?
    *A. too much follow through with arm and hand
    B. wrist too stiff when contacting the ball
    C. punching the ball
    D. not enough contact area when hitting the ball

11. What is the major weakness of the W receiving formation?
    A. the center area of the court is not covered
    B. the center front area of the court is not covered
    *C. the center back area of the court is not covered
    D. the defense has no weaknesses

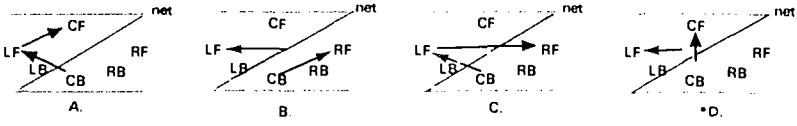
12. What technique do players use to get back to their feet after reaching or diving for a ball?
    A. Russian roll
    B. English roll
    C. American roll
    *D. Japanese roll

13. Which technique is usually the most effective when passing the ball to a spiker?
    *A. an overhead volley
    B. a forearm bump
    C. an underhand volley
    D. a one-hand dig

14. What is the basic offensive pattern?
    A. set-spike-block
    *B. pass-set-attack
    C. spike-block-spike
    D. pass-set-dink

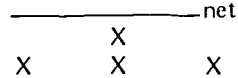
15. What does the term "overset" mean?
    *A. the ball is poorly set and it crosses the net
    B. the ball is set so high that it hits the ceiling
    C. the ball is set over the hitter's head
    D. the ball is set from the backrow

16. Which diagram indicates the best strategy when the center back makes the first hit?



17. What is the proper order in "serving psychology"?
    *A. first serve should always be in; second serve should have more toughness
    B. first serve should always be in; second serve should be an ace
    C. first serve should be an ace; second serve should be an ace
    D. first serve should have a little toughness; second serve should always be in

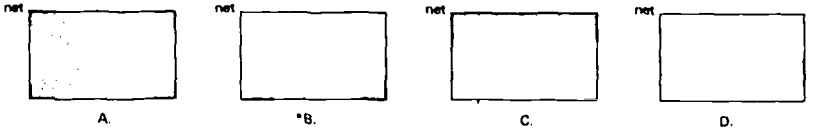
18. Which player should receive a serve directed to an area on the court designated by the dot?
    A. the left back; the ball is on his right side
    B. the right back; he can pass to the left front
    *C. the left back or the right back
    D. the center back; he should drop back



19. What serving strategy usually applies in any situation?
    A. serve anywhere you wish.
    B. serve to the center area of the court.
    C. serve to the shortest player on the team.
    *D. serve to the back line.

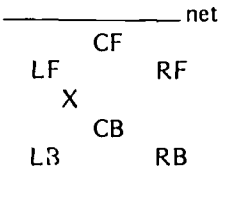
20. What is the most desirable team line up if players A and B are very strong and consistent servers?
    A. player A serves first; player B serves second
    B. player A serves first; player B serves third
    *C. player A serves first; player B serves fourth
    D. player A serves first; player B serves sixth

21. What darkened area shows the best region for serve placement?



A. *B. C. D.

22. The right back player has made a poor pass on receiving the serve. X indicates the position of the ball. Who should play the ball on the next hit and why?
    A. center front, because he is the setter
    B. left front because he is in the best position to set to the center front or right front
    *C. left back, because he is in the best position to set to the left front or right front
    D. center back because he can set to the left front



23. In what area of the court are the majority of serves placed?
    A. across the back 7½ feet of the court
    *B. across the center 15 feet of the court
    C. across the forward 7½ feet of the court
    D. along the right and left sidelines

24. The ball is too close to the net for a spike. What skill should the spiker use?
    A. the dig
    B. the volley
    C. the bump
    *D. the dink

25. What is the spiker's first responsibility?
    A. spike the ball
    *B. hit the ball over the net
    C. dink the ball to an open space
    D. bump the ball to the back line.

26. Which country has had the greatest influence on men and women's volleyball in the United States?
    A. Canada
    B. Europe
    *C. Japan
    D. Russia

27. What is a free ball?
    *A. one that is returned easily over the net from the opponent's court
    B. one that the opponents are unable to play
    C. one that is good enough to be hit by a spiker but not hit sharply enough to block
    D. one that neither team is able to play

28. What is the major weakness of the "umbrella" receiving formation?
    *A. the center area of the court is not covered
    B. the front area of the court is not covered
    C. the center back area of the court is not covered
    D. this defense has no weaknesses

29. What body part gives the best surface for contact and control of the bump pass?
    A. the fists
    B. the wrists
    *C. the forearms
    D. the hands

30. Your opponents have been very successful in blocking spikes. What is the best strategy for your team?
    *A. place the sets farther from the net
    B. avoid using the spike
    C. utilize the offensive volley
    D. spike the ball harder

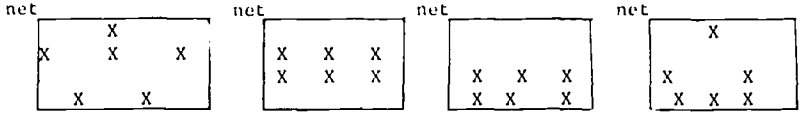
31. Which player is considered the "play maker"?
    A. the server
    B. the center back
    C. the spiker
    *D. the setter

32. How is the ball usually played when the spiker receives the ball first?
    A. spike the ball over the net
    B. pass the ball to another spiker
    *C. pass the ball to a setter
    D. drive the ball over the net

33. Where is the best place to serve if the opposing team has its best spiker in the left front position and why?
    *A. to the right back area because you play away from strengths
    B. to an area between the left back and the center back as you hope there will be indecision as to who will play the ball
    C. to the right front as she is the weakest hitter
    D. to the left back as the left front will have a more difficult time seeing the set

34. The right back player has the second play on the ball. To whom should he set the ball and why?
    A. the right front player; he is the closest hitter.
    B. the right front player; he is the on-hand hitter.
    C. the left front player; he is the on-hand hitter.
    *D. the left front player; he can always see the ball.

35. Which diagram indicates the best method to line up for receiving the serve?



*A. B. C. D.

36. Which game situation is illegal?
    A. two players on the same team hit the ball simultaneously on the third hit
    B. during defensive play the ball strikes the net and goes over
    C. the ball hits a player on the shoulder and goes over the net
    *D. a served ball hits the net and goes over

37. Which statement illustrates illegal game play?
    A. a player steps on the end line to receive a serve
    B. a player contacts the ball twice during the time it is on his side
    C. a spiker returns to the floor and steps on the center line
    *D. the server puts the ball in play anywhere behind the end line

38. What is the official length of a volleyball game?
    A. 15 minutes playing or 8 points
    *B. 15 points or 8 minutes of playing time
    C. two point advantage after 15 minutes of play
    D. 8 minutes playing time

39. Which situation illustrates illegal play at the net?
    A. a player reaches under the net to play a ball falling from the net
    B. a player reaches above the net to block a ball
    *C. a player steps over the center line during game play
    D. a player grabs the shirt of a teammate and pulls her back to prevent her from falling into the net

40. What is the proper net height for men's play and for women's play?
    A. 8 feet (men), 8 feet (women)
    B. 7 feet 4½ inches (men), 7 feet 4½ inches (women)
    *C. 8 feet (men), 7 feet 4½ inches (women)
    D. 8 feet (men), 7 feet (women)

41. Which score indicates a completed game?
    A. 15-14
    *B. 11-9
    C. 16-15
    D. 12-11

42. Two teammates contact the ball simultaneously. What is the official's decision?
    A. violation – the ball is awarded to the opposing team
    B. violation – the play is repeated
    C. legal – two hits are counted
    *D. legal – one hit is counted

43. Which foot placements are examples of line fouls?
    A. stepping on the center line; stepping on the serving line during service
    B. stepping over the center line; stepping over the side line during play
    *C. stepping over the center line; stepping on or over the serving line during service
    D. stepping on the center line; stepping on the serving and side line during play

44. What is a double foul?
    *A. two opponents commit fouls at the same time
    B. two teammates commit fouls at the same time
    C. the same player commits two fouls at the same time
    D. a team foul and a personal foul occur at the same time

45. How many points has Team A scored if they have rotated through the following serving order: Kathy served 3 times, Beth served 4 times, Mary served 1 time, Susan served 2 times, Pat is ready to serve for the fourth time?
    A. 8 points
    *B. 9 points
    C. 13 points
    D. 14 points

46. Which playing pattern may be anticipated from an opposing team with one highly skilled player and five average players?
    A. the highly skilled player will return many serves directly.
    *B. the team will take advantage of the interchange rule.
    C. the team will use the pass, set, spike pattern more than an average team.
    D. the front line will play closer to the net than the front line on an average team.

47. What suggestion should be given to a right handed player who consistently contacts the ball with her wrist when attempting an underhand serve?
   A. Toss the ball in the air and strike it on the downward flight.
   *B. Keep the left arm straight.
   C. Stand up erect.
   D. Step toward the net when contacting the ball.

48. What offensive skill should a short player master for greater success at the net?
   A. spike
   *B. overhand drive
   C. dink
   D. dig

49. The center back deflects a served ball so that it hits the net just below the top. What type of rebound should the center forward anticipate as she moves into position to play the ball?
   A. Ball will rebound out 1-2 feet before dropping.
   B. Ball will rebound upward 1-2 feet before dropping.
   C. Ball will rest momentarily in the net before dropping.
   *D. Ball will drop straight down.

50. When should a team shift into position for a two man block?
   *A. As soon as the setter executes a good set.
   B. As soon as the setter receives a pass.
   C. As soon as the spiker's feet leave the floor.
   D. As soon as the ball reaches its highest point.

ARCHERY EXAMINATION†

DIRECTIONS: All of the questions are multiple choice. Select the best answer from those given for each question. Indicate the correct answer by blackening the proper space on the answer card. Be sure to mark heavily in the space provided. If you mark the wrong box, be sure to completely erase the incorrect answer. Do not mark on the test booklet. Do not waste time on difficult questions. Go to the other items and reconsider omitted items if you have time, but please finish all items if at all possible. Unless otherwise stated, assume the player is right-handed in answering all questions.

1. What determines the length arrow an archer should use?
   A. The weight of the bow.
   *B. The length of the archer's arms.
   C. The distance from the target.
   D. The length of the bow.

2. How do you determine which end of the bow should be up when shooting?
   A. The trademark on the bow identifies the upper limb.
   B. The looped end of a single-loop string should be on top.
   *C. The upper limb is longer and has more bend.
   D. It does not make any difference, the bow shoots well either way.

3. Which piece of equipment does the term laminated describe?
   *A. The bow.
   B. The arrow.
   C. The target.
   D. The target stand.

4. How should arrows be removed from the target?
   *A. Place back of one hand against target with fingers surrounding arrow and with the other hand grasp the arrow close to the target.
   B. Grasp arrow with both hands and pull gently.
   C. Push against target with palm of one hand and pull arrow gently with other.
   D. Push against target with one hand and place the other around the fletching for protection as you pull gently.

†Farrow, Andrea C. "Skill and Knowledge Proficiencies for Selected Activities in the Required Program at Memphis State University." Ed.D. dissertation, University of North Carolina at Greensboro, 1970. Used with the permission of the author.

*Indicates correct answer.

5. What should an archer do when finished shooting an end?
   A. Retrieve his arrows.
   B. Remain quietly on the shooting line until everyone is finished.
   C. Step behind the shooting line and talk to the other archers.
   *D. Step at least three feet behind the shooting line and remain quiet.

6. What score is given an arrow which cuts the red and the blue?
   A. 5.
   B. The value of the color in which the greater part of the arrow is.
   *C. 7.
   D. 3.

7. How is the score recorded when a shooter has 1 gold, 2 reds, and 3 whites in an end?
   A. 1,1,1,7,7,9.
   B. 9,5,5,1,1,1.
   *C. 9,7,7,1,1,1.
   D. None of the above.

8. What would be the score of one bounce-off, one bull's eye, one blue, two blacks, and one petticoat?
   A. 25.
   *B. 27.
   C. 28.
   D. 29.

9. What happens to a misfire?
   A. It may not be shot again under any circumstances.
   B. It may be retrieved after shooting has ceased and shot again.
   *C. It may be shot again if the archer can reach it with his bow.
   D. It is scored as 7.

10. What is the proper scoring procedure?
   A. Everyone draws and scores his own arrows.
   *B. One person draws all the arrows while a different person scores them.
   C. Everyone draws his own arrows except the scorekeeper.
   D. Everyone draws his own arrows including the scorekeeper.

11. What should be done with a "hanging-arrow"?
   A. It should be left alone and fixed when the end is over.
   B. It should be pulled and placed under the target.
   C. It should be shot over again.
   *D. It should be straightened and placed in the appropriate color.

12. What should an archer do upon hearing two blasts of a whistle?
   A. Retrieve her arrows.
   B. Know that there is an emergency.

C. Start shooting.
*D. Stop shooting and unnock her arrow.

13. When should archers advance beyond the shooting line?
A. When all of the arrows have been released.
B. When the round has been completed.
C. When the archer's end is completed.
*D. When the signal is given to retrieve arrows.

14. Why should an arrow never be nocked before the signal is given to shoot?
*A. It violates archery safety rules.
B. It violates archery courtesy rules.
C. It gives an unfair advantage to that shooter.
D. Someone may be in front of the shooting line.

15. What should an archer look for after each end?
A. Broken nocks.
B. Splintered arrows.
C. Missing piles.
*D. All of the above.

16. What does bracing the bow involve?
A. The act of hanging it up unstrung after use.
B. Keeping it on the quiver rest and out of the grass.
C. Drawing the bow several times before shooting.
*D. Stringing the bow.

17. Where should the point of aim be when shooting long distances?
*A. On or above the target.
B. On or below the target.
C. In front of the target.
D. At the bull's eye.

18. Why is it usually more difficult to shoot accurately at long ranges than at short ones?
A. Arrows must be released higher so a point of aim is harder to find.
B. Gravity has more effect so arrow flight is harder to control.
C. The release must be perfect so as not to smother the bow's force.
*D. Slight directional errors are magnified as distance increases.

19. How should your aim be adjusted as you move farther away from the target?
A. Lowered.
*B. Raised.
C. Stay the same.
D. Moved to the left.

20. Where do you sight in aiming?
    A. Over the cock feather.
    *B. Over the pile.
    C. Down the shaft.
    D. Over the crest.

21. How should the archer sight?
    *A. With the right eye.
    B. With the left eye.
    C. With both eyes.
    D. With either eye, it really does not matter.

22. What does the point of aim method of shooting involve?
    *A. Aiming at a specific object placed on the ground for this purpose.
    B. Aiming by picking a point on or above the ground at which to aim.
    C. Aiming by using a bow sight.
    D. Aiming directly at the yellow to see where the arrows are "grouped."

23. A shooter who is using a point of aim marker on the ground finds her arrows going over the target at 11 o'clock. What adjustment should be made?
    *A. Move her marker nearer the shooting line and slightly to the right.
    B. Move her marker nearer the target and slightly to the right.
    C. Move her marker nearer the shooting line and check the position of her bow hand and arm.
    D. Move her marker nearer the target and slightly to the left.

24. Why do most shooters aim below the target at ranges of 30 yards or less?
    A. Because at shorter distances gravity does not have time to take effect.
    *B. Because the shooter looks <u>down</u> over the tip of the arrow instead of sighting along the shaft.
    C. Because the arrow is "caught" by the target as it rises in flight.
    D. Because at shorter ranges the arrow speed is so great that gravity does not affect the arrow.

25. Which does <u>not</u> apply in correctly bracing a bow by the push-pull method?
    A. Bow is placed against inside arch of right foot.
    B. Left hand presses upper limb of bow down and pushes string toward upper nock.
    C. Right hand pulls bow toward archer by grasping the bow handle.
    *D. Right leg steps between bowstring and belly of the bow.

26. Why do hunters use instinctive shooting rather than bowsights?
    A. They cannot judge the distance accurately enough.
    *B. They do not have time to set a bowsight.
    C. They have to get so close to have "killing power" that a bowsight is useless.
    D. The bow is too heavy to hold at anchor point so the length of the draw and angle of release must be done by "feel."

27. How would a free style archer adjust his sight if his arrows were low and left?
    A. Higher and toward the bow.
    B. Higher and away from the bow.
    C. Lower and towards the bow.
    *D. Lower and away from the bow.

28. A shooter using a bowsight finds her arrows going just over the top of the target. What adjustment should she make?
    *A. Pin should be raised (moved up toward the upper limb of the bow).
    B. Pin should be lowered (moved down toward the ground).
    C. Shorten her anchor point slightly; she is probably overdrawing.
    D. Check her head position; she is probably looking up or peeking.

29. Where is the string placed on the fingers in drawing the bow?
    A. Near base of fingers.
    B. On the crease of the second joint.
    C. Between the first and second joint.
    *D. Near the tips of the fingers.

30. Why is holding an important part of shooting?
    *A. It gives the bow arm a chance to become steady.
    B. It will help reduce fatigue.
    C. It helps the muscles increase in tension.
    D. It gives the shooter time to "get set."

31. An archer's arrows are grouped at 4 o'clock. Why is this an important accomplishment?
    A. Consistency is very important in archery.
    *B. Grouping shows that the shooter has established consistent form in shooting.
    C. Only a small adjustment needs to be made with her bowsight for her to group her arrows in the gold.
    D. Grouping shows that the shooter is releasing each arrow the same way.

32. Which best describes the position of the bow arm during the draw?
    *A. The elbow is slightly bent.
    B. The elbow is locked.
    C. The elbow is bent at a right angle.
    D. The elbow is tilted slightly upward.

33. Which fingers are on the bow string during the draw?
    A. All the fingers.
    B. The first finger and thumb.
    *C. The first three fingers.
    D. The first two fingers.

34. Is the stance important in archery? Why or why not?
    A. No, if the hips and shoulders are aligned, the arrow is apt to fly more true.
    B. No, if the line of pull is parallel to the bow arm, the arrow will fly to the target.
    C. Yes, the line across the toes determines the direction the arrow will take.
    *D. Yes, the hips and shoulders are more apt to be aligned if the stance is right.

35. Which of the following is most important in gripping the bow?
    A. Hold the bow securely in the fingers.
    B. Hold the bow against the full length of the heel of the hand and let the fingers curl naturally around the bow.
    *C. Hold bow against heel of the thumb, grip very little with the fingers.
    D. Hold bow so knuckle of forefinger is as wide and level as possible.

36. A shooter is having difficulty because her arrows fall off her bow hand. Which of these is the most likely cause?
    A. She probably has not tipped her bow slightly as she should.
    B. Her arrows probably fit the bow string too loosely.
    C. She probably does not have her fingers close to the arrow as she draws.
    *D. She probably draws the string back toward her right ear.

37. What is the location of the anchor point?
    A. At the tip of the nose.
    B. High on the cheek bone.
    C. Beside the ear.
    *D. Under the jaw bone.

38. Which statement best applies to the anchor point?
    *A. It must be consistent.
    B. It is constantly changing.
    C. It determines the distance the arrow travels.
    D. It varies with the individual.

39. Which of the following would be most likely to cause an arrow to go high?
*A. Anchoring while the mouth is open.
B. A head-on wind.
C. Creeping.
D. Bow sight placed too high.

40. When should an archer remove her hand from the anchor point?
A. When the arrow is released.
*B. When the arrow hits the target.
C. When the arrow is on its way.
D. When the draw is completed.

41. Why should the fistmele be 6" or more?
*A. So the string will not slap the wrist.
B. So the bow will have its full power.
C. So the bow will shoot smoothly.
D. So the flight of the arrow will not be affected.

42. How is the bow held when nocking the arrow?
*A. Parallel to the ground.
B. Perpendicular to the ground.
C. In shooting position.
D. In the opposite hand.

43. What generally causes the arrow to fall off the arrow rest?
*A. Holding arrow too tightly with the right hand.
B. Tipping bow to the left.
C. Not holding arrow with left index finger.
D. Cross-wind.

44. How is the cock feather distinguished from the other feathers?
*A. It is at a right angle to the nock.
B. It is parallel to the nock.
C. It is colored white.
D. It is a different shape.

45. Which direction does the cock feather point when the arrow is nocked?
A. Toward the ground.
B. To the right and left.
*C. Toward the sky.
D. It depends on the wind.

46. Which best describes the proper way to address the target?
A. Stand on shooting line, facing the target.
*B. Stand astride the shooting line, looking toward target.
C. Stand with feet together, shoulder toward target.
D. Stand astride the shooting line, turning the body to face target.

47. Under which condition is the elbow apt to be bruised?
    A. Shooter lets her elbow bend as she releases the arrow.
    *B. Shooter uses all possible forces to support bow at full draw position.
    C. The bow is understrung.
    D. The shooter overdraws.

48. A shooter scores only random hits in the target. She has few high scoring arrows; many hits are in the black and white. She shows no consistent directional errors. What is most apt to be her source of difficulty?
    A. She varies her shooting stance each time she shoots.
    B. She has not marked her point of aim carefully enough.
    *C. She has a poor release as her main problem.
    D. She fails to concentrate long enough on point of aim before release.

49. How should the arrows be released?
    A. By pushing the arrow.
    *B. By relaxing the fingers.
    C. By jerking the right hand off the string.
    D. By relaxing the shoulder muscles.

50. What is important to do after loosing the arrow?
    A. Watch the flight of the arrow.
    *B. Hold the shooting position for one to three seconds.
    C. Nock another arrow immediately.
    D. Relax the position before the next shot.

51. What does the term "quiver" describe?
    A. A shaking of the bow as the string is released.
    B. A jerky release.
    C. The result of an incorrect anchor.
    *D. A device to hold the arrows.

52. What is a round?
    A. Six arrows.
    B. Six ends.
    *C. Any designated number of ends.
    D. 15 ends.

53. What is the crest?
    *A. Distinctive markings on the arrow.
    B. Collective name for the feathers.
    C. Part of the arrow between the nock and the feathers.
    D. Pointed end of the arrow.

54. To what does bow "weight" refer?
    *A. The number of pounds required to draw the string a specific distance.
    B. The number of pounds a bow weighs after it is strung.

C. The number of pounds a bow weighs before it is strung.
D. The number of pounds of pressure one must exert to string a bow.

55. What is the petticoat?
A. The black line around the edge of the target.
*B. The non-scoring portion of the target.
C. The white ring on the target.
D. The gold circle on the target.

Below are a number of questions listing some common errors in archery. For each question decide the direction an arrow will go if the archer makes this error.

If high, mark box	A
If low, mark box	B
If to the right, mark box	C
If to the left, mark box	D

56. Third finger not on the string. (A)**
57. Flinching the bow arm. (D)
58. Squeezing the arrow. (D)
59. Hunching the left shoulder. (C)
60. Dropping the bow arm on release. (B)
61. Plucking the string on release. (C)
62. Arrow nocked low. (A)
63. Tilting the bow to the left. (D)
64. Failure to anchor under chin. (A)
65. Creeping. (B)
66. Elbow of drawing arm lowered on release. (B)
67. Aiming with the left eye. (D)
68. Not bringing the arrow back to full draw. (B)
69. Releasing while string is away from face. (D)
70. Failure to anchor under jaw. (A)

**Letters in parenthesis indicate correct answer.

TENNIS TEST†

General Instructions: Please do not write on the question sheet. Write your name, the class and section, in the place provided, on the answer sheet. Each question is worth 2 points. All questions refer to right-handed players.

I. True-False: Use the T and F columns on the answer sheet. If the statement is true mark an X in the T column, if false mark an X in the F column.

F 1. A racket with more weight in the head is best for all practical purposes.

T 2. Matches involving women consist of the best two out of three sets.

T 3. Men should wear shirts when playing tennis.

T 4. Rackets of steel, aluminum and fiberglass increase the need for accuracy.

F 5. The receiving order is determined by the order of service.

F 6. Practice serves should be taken just before the player's first serve.

F 7. You should give the benefit of the doubt, on close calls, to your opponent.

F 8. Running baseline players who hit well with both forehand and backhand from side to side, is a strategic move.

T 9. It is acceptable etiquette to hit to your opponent's weaknesses.

T 10. The latest research indicates that "tennis elbow" is caused by improper use of the arm.

II. Multiple Choice: Decide which is the best answer. On the answer sheet, mark an X in the numbered column that corresponds with the number of the response.

†Prepared by Ann Craft, University of North Carolina at Greensboro. Used by permission of the author.

11. A "big game" to win is
    *1. the first
    2. the third
    3. the fourth
    4. the sixth

12. Good doubles players usually move toward the net
    1. as they volley
    2. as they return service
    3. as they serve
    *4. all of these

13. The server does not rush the net after her serve. A good return would be
    *1. a standard baseline shot
    2. a long lob
    3. a drop shot
    4. a slice

14. The best spin for a player to learn is
    *1. the backspin
    2. the topspin
    3. the right spin
    4. the left spin

15. The best target areas for service are
    A. directly at the player
    B. down the center line
    C. deep and to receiver's backhand
    D. short, cross-court
    E. shallow, center of service court
    1. A,B
    *2. A,C,D
    3. C,D,E
    4. B,D,E

16. Your ball rolls onto your neighbor's court. To retrieve it you should
    1. run fast and stay low
    2. wait until they finish the game
    *3. wait until they finish the point
    4. walk straight to your ball

*Indicates correct answer.

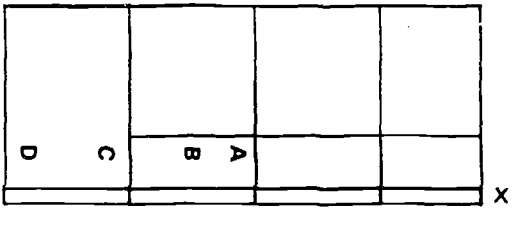
17. Hard surface courts are "fast." They favor the player
    A. who is aggressive
    B. who is steady
    C. who has a good serve
    D. who can volley well
    E. who can hit overhead before the bounce
    1. A,B
    2. B,C,D
    3. C,D,E
    *4. A,C,D,E

18. The served ball touches the net and drops into the proper service court. It is
    *1. a let
    2. a point
    3. a fault
    4. a legal serve

19. A volley below the level of the net should be
    A. hit with more backswing
    B. hit with an open face
    C. hit with a soft-angle
    D. hit with a deep volley
    E. hit with a slicing stroke
    1. A,B
    2. A,B,C
    3. B,D,E
    *4. B,C,D

20. Your serve, in a doubles match, should be
    1. hit with speed
    2. hit flat
    *3. hit to bounce high
    4. hit easy

21. Refer to the diagram. Defender X must hit into the shaded area. She should try to keep her opponent out of area
    *1. A
    2. B
    3. C
    4. D



22. Refer to the diagram. Defender X has forced her opponent into area B. Defender X now has a better chance of success using
    A. a lob shot
    B. a baseline shot
    C. a straight shot
    D. a punch shot
    E. a crosscourt shot
    1. A,B
    2. A,C
    3. B,D
    *4. C,E

23. One may hit with more force by extending her lever. This can best be accomplished by
    1. stretching the arm toward the sideline
    2. extending the forearm and wrist
    3. twisting the hips to the side
    *4. turning the side toward the net

24. The advantage of hitting the ball on the rise is
    1. the added time it allows
    2. the added control it allows
    *3. the pressure it puts on the opponent
    4. the small backswing needed

25. The essential skill for better tennis is
    *1. the strong serve
    2. the long lob
    3. the short chop
    4. the overhead smash

26. The shot best described as a point winner is
    1. the volley
    *2. the smash
    3. the slice
    4. the drive

27. The most common trouble with a chop shot is
    1. too little underspin
    2. too little carry of the ball on the strings
    3. too much power
    *4. too much underspin

28. The half volley should be played
    *1. immediately after the ball strikes the ground
    2. Immediately after the ball crosses the net
    3. immediately before the ball strikes the ground
    4. immediately as the ball reaches knee height

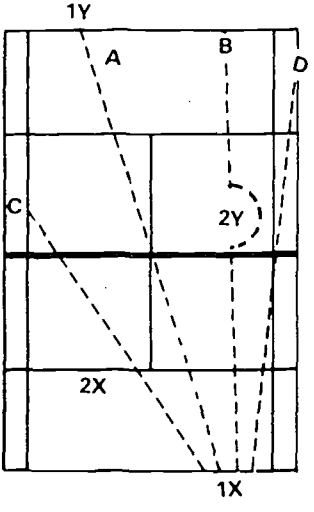
29. Excessive body action on the backhand is likely to cause the ball to be hit
    1. with the upper part of the racket face
    2. with too much force
    *3. with a slice
    4. with a leading racket head

30. You served to the far corner of your opponent's deuce court. Your follow-up placement should usually be hit to
    1. her forehand side
    2. her baseline
    3. her service line
    *4. her backhand side

31. Your opponent is a baseline player. Most of your shots should be hit crosscourt because
    A. the opponent does not have an opportunity to rush the net
    B. the opponent is moved out of position
    C. the ball crosses the net at its lowest point
    D. the diagonal is longer than down-the-line
    E. the backhand is usually harder to return
    1. A,B
    2. A,B,C
    *3. B,C,D
    4. C,D,E

32. Refer to the diagram. 1Y is the server. X players are the receiving team. 2Y has been poaching shots. A good shot for 1X to use is
    1. A
    2. B
    3. C
    *4. D

33. Refer to the diagram. 1Y is serving. X players are the receiving team. The best shot for 1X to use in keeping 1Y from rushing the net is
    1. A
    *2. B
    3. C
    4. D



34. A player who wants to put more "stuff" on her serve should
    *1. use the backhand grip
    2. use the forehand grip
    3. use the western grip
    4. use the flat grip

35. A player who "opens her body" too soon, on the forehand drive, is likely to hit the ball
    1. with too much force
    *2. with lots of sidespin
    3. with lack of control
    4. with little follow-through

III. Matching: Match the term on the left with a phrase on the right. Write the letter of the correct phrase in column 1 on the answer sheet.

N	36. 40-15	A. an approach shot
E	37. continental	B. is becoming obsolete
C	38. parallel	C. the best position for doubles
R	39. rush the net	D. cover the alley and scramble for the crosscourt
B	40. western	E. the forehand and backhand grip are the same
K	41. concentration	F. the game as a whole
L	42. deep lob	G. the hand rotated to the left
D	43. net player	H. to hit down the center
J	44. hard hit	I. to hit quickly
P	45. a winner	J. a large target area is needed
		K. a must for winning tennis
		L. an opportunity for taking the net
		M. the receiver leads
		N. the server leads
		O. the serving order
		P. a shot made from the net
		Q. a strategic technique
		R. the opponent is on defense

IV. Rearrangement: Arrange the items under each statement in proper order. On the answer sheet write the lettered order using each of the columns provided. Write from left to right.

CEABD

46. Arrange in logical order the steps in hitting with forward spin
    A. wipe up the back of the ball
    B. press the ball forward
    C. hit from behind the ball
    D. top edge of the racket leads
    E. hit from slightly below the ball

DEBAC

47. Arrange in logical order for a practice session
    A. exaggerate the use of your weak points
    B. give special attention to keeping a firm grip
    C. experiment with new strokes
    D. think of basic fundamentals
    E. hit long ground strokes

BEDCA

48. Arrange in sequence the shots the receiver might use in winning the point
    A. sharp angled volley
    B. keep the ball in play
    C. forehand drive down-the-line
    D. crosscourt shot
    E. shot from the baseline

ACEBD

49. Arrange in proper sequence the steps in hitting a backhand
    A. pull the racket into position
    B. arm and racket in same vertical plane
    C. adjust the grip
    D. racket head slightly higher than the wrist
    E. pivot the shoulders and hips

BDACE or BDAEC

50. Arrange in the most strategic order for serving in singles
    A. rush toward the net
    B. serve from near the center mark when in deuce court
    C. serve with a slice
    D. serve to the far corner
    E. serve deep

BOWLING TEST†

I. True-False

Directions: Place an X in the first space on the answer sheet if the statement is true and an X in the second space on the answer sheet if the statement is false.

T 1. A right-handed bowler begins the four step approach on his right foot.

F 2. Pin bowling involves the use of the dots and arrows on the lanes and approach areas.

T 3. A foul means that some part of the body has touched on or beyond the foul line.

F 4. The shoulders should be square to the foul line throughout the approach when converting a ten pin spare.

F 5. The first step of the approach should be a long one in order to develop speed quickly.

F 6. A backup ball, for a right-handed bowler, curves to the left.

T 7. Two bowlers on adjacent lanes are prepared to bowl at the same time. The bowler on the right has priority.

T 8. Reaching forward on the release will help avoid the tendency to drop or loft the ball.

F 9. The five step approach is recommended for beginners.

T 10. The steps of the approach should increase in length from the first step through the slide or last step.

F 11. Shoes for a right-handed bowler should have a leather sole on the right shoe.

T 12. Using a ball with a hole span which is too short can cause muscular fatigue in the hand.

F 13. The hook ball is easier to control than the straight ball.

F 14. Using a lighter ball will decrease the amount of ball deflection off the pins.

†Prepared by Emma Jean Howard, Instructor, Physical Education Department, Winthrop College, Rock Hill, South Carolina. Used by permission of the author.

F 15. The ball should be released as it crosses the foul line.

T 16. The thumb is removed from the holes prior to the fingers in delivering the straight ball.

II. Matching

Directions: Place the letter of the word that best describes each statement in the first space of each corresponding number on the answer sheet. Each statement has only one answer.

e.	17. one pin of a cluster down on 2nd ball	a. brooklyn
g.	18. two successive strikes	b. spare
b.	19. all ten pins down with 2 balls	c. baby split
l.	20. failure to knock down all pins with 2 balls	d. sleeper
d.	21. pin left standing directly behind another	e. cherry
n.	22. #7 and #10 pins left standing	f. turkey
c.	23. #2 and #7 or #3 and #10 pins left standing	g. double
f.	24. three successive strikes	h. steel
j.	25. all ten pins down with 1st ball	i. split
		j. strike
		k. strike out
		l. blow
		m. timber
		n. railroad

III. Multiple Choice

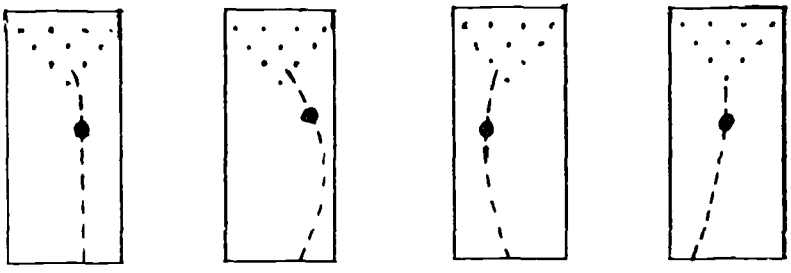
Directions: Place the letter of the best answer in the space on the answer sheet corresponding to the letter on the test paper.

26. What is the score for a perfect game?
    a. 100
    b. 200
    *c. 300
    d. 400

27. What is the most important factor in selecting the proper weighted bowling ball?
    *a. over-all strength of the individual
    b. strength of the grip of the individual
    c. size of the hand of the individual
    d. body weight of the individual

28. Which diagram best illustrates a curve ball?

a. *b. c. d.



29. A bowler scores a strike, a spare, and a strike in the first three frames, respectively. What is the bowler's score at this point?
    *a. 40 in the 2nd frame
    b. 50 in the 2nd frame
    c. 40 in the 3rd frame
    d. 50 in the 3rd frame

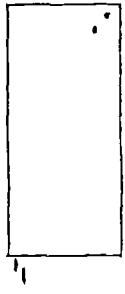
30. What is the best strike pocket for a right-handed bowler?
    a. 1-2 pocket
    *b. 1-3 pocket
    c. 1-6 pocket
    d. 1-4 pocket

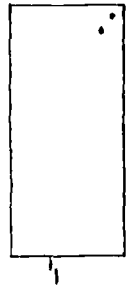
31. Which organization is the main governing body of organized bowling?
    a. AABU
    b. WIBC
    *c. ABC
    d. NBC

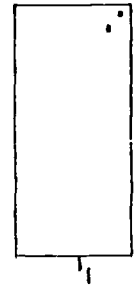
*Indicates correct answer.

32. Which pin is commonly known as the king pin?
    a. 1
    *b. 5
    c. 7
    d. 10

33. From which position should a right-handed bowler try to convert the 6-10 spare?

*a. 

b. 

c. 

d. 

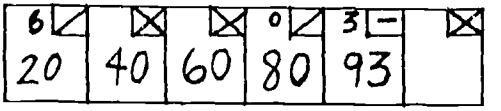
34. What is the only factor that might change when the second ball of the frame is bowled?
    a. the length of the pushaway
    b. the method of aim
    *c. the starting position on the approach
    d. the speed of the ball

35. Which factor has the greatest effect upon the pendular swing?
    a. pushaway
    b. joint action
    *c. gravity
    d. knee bend

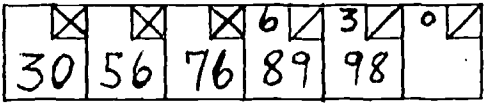
36. A bowler fouls on the first delivery of a frame. What is the proper procedure?
    a. pin fall counts, bowler forfeits 2nd delivery
    b. pin fall does not count, bowler allowed 2nd delivery
    c. pins are reset, bowler forfeits 2nd delivery
    *d. pins are reset, bowler forfeits 1st delivery

37. Which diagram contains the correct score?

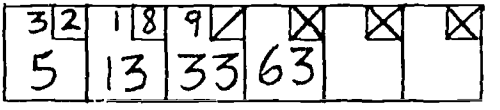
a.



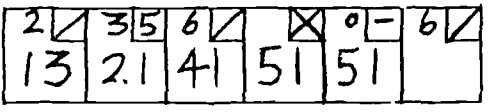
b.



c.



*d.



38. What is the best way to improve your game?
    a. develop speed in the approach
    *b. develop consistency in the approach
    c. develop coordination in the approach
    d. develop rhythm in the approach

39. Why do some right-handed bowlers center the ball in front of the right shoulder in the stance?
    a. to better achieve a pendular swing
    b. to avoid side-arming the ball
    c. to maintain the plane of the swing
    *d. to achieve consistent release

40. An individual consistently lofts the ball. What is the best suggestion for correction?
    a. looser grip
    b. lighter ball
    *c. slower swing
    d. longer approach

41. An individual is consistently off balance after release. What is the most probable cause?
    a. too much speed in approach
    b. too much sway in approach
    c. too much force in pushaway
    *d. too much force in backswing

42. The hook ball is considered a better "strike-getter" than the straight ball. Why?
    *a. because it produces greater pin action due to spin
    b. because it produces greater pin action due to angle
    c. because it produces greater pin action due to speed
    d. because it produces greater pin action due to release

43. Which action constitutes an illegal pinfall?
    *a. a ball rebounds from the gutter and knocks down a pin
    b. a pin rebounds from the cushion and knocks down another pin
    c. an incorrect pin placement is discovered after the delivery
    d. all of the above are legal pinfall situations

44. What part of the approach must be consistent before the beginner should progress to the complete approach?
    a. pushaway
    *b. armswing
    c. steps
    d. release

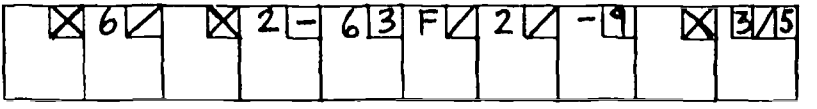
45. What is the most important factor to be considered in attempting a spare of more than one pin?
    *a. interaction of ball and pins
    b. deflection of the pins
    c. angle of contact
    d. deflection of the ball

46. Which spare position would use the same approach position as the strike?
    a. 5-9
    b. 1-2-8
    *c. 1-2-5
    d. 2-4-5

47. What is the best ball-pin contact position for converting a sleeper?
    *a. square hit on 1st pin
    b. angle hit on 1st pin
    c. angle hit between the pins
    d. square hit on 2nd pin

48. Which factor is most important to achieving a consistent release?
    a. follow-through
    b. starting position
    *c. approach
    d. deflection of the ball

Questions 49 and 50 are concerned with the diagram below:



49. What is the score at the end of the sixth frame?
    a. 60
    b. 62
    c. 71
    *d. 75

50. What is the score at the end of the game?
    a. 115
    b. 121
    *c. 129
    d. 132

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