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ANNEX TO "Performance Test Development for Skill Qualification Testing"

ARMY PERFORMANCE TESTS-A CRITIQUE

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July 1975

Prepared for
US Army Training and Doctrine Command
Fort Monroe, Virginia 23651

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FOR SKILL QUALIFICATION TESTING"

ARMY PERFORMANCE TESTS - A CRITIQUE

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July 1975

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FOREWORD

This document is an annex to the manual: "Performance Test Development for Skill Qualification Testing" by Robert Vineberg and Elaine N. Taylor; (Army Research Institute for the Behavioral and Social Sciences, July 1975). The annex was prepared for the U.S. Army Training and Doctrine Command under Purchase Order No. DABT 57-75-M-A240. CPT Harry Porthouse was the Project Monitor.

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INTRODUCTION

This document has been assembled as an Annex for use in conjunction with the manual: "Performance Test Development for Skill Qualification Testing"¹. It contains brief comments on a selected sample of tests now in use at U.S. Army Training and Doctrine Command (TRADOC) Service Schools. Its purpose is to amplify the principles of performance test construction contained in the parent manual through an analysis and criticism of existing tests.

Of the 32 examples of tests which follow, the majority have been used to illustrate poor test construction practices. However, it should be noted that the tests were developed for training purposes. Since training objectives can vary considerably from actual task performance objectives, it is quite reasonable that tests used in training do not meet the requirements covered in the manual for skill validation and qualification tests. Also, at training centers, testing can be conducted informally, the person administering a test generally knows its content without needing detailed specifications, and issues of test standardization are less critical. Therefore, where tests are depicted as representing poor test construction practices, the reader is asked to remember that they were developed for purposes that differ from the way they are being used here.

The examples presented in this document have been taken from a larger set of tests which was furnished to TRADOC by its Service Schools. The entire set of tests was reviewed and a classification of the major problems associated with the various tests was developed. A sample of tests was then selected to depict these problems. Also, a few tests that provided good examples of certain features of test construction were included. Certain tests were omitted from consideration because they were too complicated and lengthy for a document of this type. Others were discarded because they require a considerable amount of technical knowledge, which would limit their comprehensibility.

The examples included in this document show the name of the task; then, either the entire test or excerpts from it; and finally, comments about each example. Many examples contain a series of Xs, indicating that portions of the original test have been omitted.

The most frequent problems appear to be overcueing, lack of detail of scoreable elements, and the use of weighted scoring procedures. A complete list of problem areas is given in the following table. The numbers shown in each category indicate which examples and commentaries to read for each specific type of problem. Almost every test appears in more than one category. The italicized numbers in the table indicate the tests that were identified as good examples of a particular feature of test construction (even though these same tests appear in other categories as poor examples).

¹Army Research Institute report, July 1975, by Robert Vineberg and Elaine N. Taylor.

CATEGORIES OF PROBLEMS

Instructions to Test Administrator	1, 2, 3
Instructions to Examinee	
Wordy	4
Incomplete	1, 2, 3, 5, 6, 7
Organization of Test Information	3
Task Boundaries	
Part of Task	4, 8, 9, 10, 11, 12, 13, 14, 15, 16
Decisions Omitted	8, 17, 18, 19
Not a Task	13, 20
Cues	
Changed	11, <u>21</u>
Overcueing	3, 4, 8, 12, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25
Verbal Substitutions for Performance	6, 11, 15, 16, 20, 26
Alternative Solutions Provided (Lack of Realism)	9, 18, 19, 27
Mismatch of Test Objective and Test Content	4, 14, 15, 16
Standardization	2, 12, 25, 27, 28
Scoring	
Detail of Scoreable Elements	1, 2, 3, 4, 6, 7, <u>10</u> , 22, 24, 25, <u>29</u> , <u>30</u>
Summary Scoring	17, 22, 31
Judgmental	7, 28, 31
Reliability	17, 18
Weighted Scores	2, 3, 5, 6, 17, 27, 29, 30, 31, 32
Wording and Tense Used	2, 31
Use of Technical Manuals	4, 5, 24, 25
Superfluous Credits	2, 32
Partial Credit for Incorrect Performance	27
Unreasonable Standard	3, 4, 6
Inadequate Sample of Performance	13

The Annex is intended to be used following a reading of the parent document. The user is encouraged to read through each example test description and consider its strengths or weaknesses before looking at the comments that are provided.

Where commentary would become too repetitious, the authors have chosen to discuss only certain features of some tests rather than to discuss each test exhaustively.

EXAMPLES AND COMMENTS

Examples and comments for the 32 performance tests that have been selected are presented in the remainder of this document. Some tests have been reproduced from the originals. Others which could not provide clear copy when reproduced have been retyped.

Solutions and Rationale

1. FIRST REQUIREMENT (SITUATION ONE)

The actions required and the deployment of equipment and personnel of the squad to set up the OP are as follows:

- a. As the scout squad approaches the vicinity of the OP, the scout squad leader halts the squad in the best immediately available covered and concealed position and moves forward dismounted with the assistant squad leader to recon the actual OP site. The squad leader searches for good covered and concealed positions for the squad vehicles, locates the vantage point from which the personnel of the squad can best observe the assigned sector, and plans covered and concealed routes from the vantage point to the proposed vehicle locations as well as covered and concealed routes of withdrawal for the squad vehicles.
- b. The squad leader brings the vehicles forward from their initial positions and places the vehicles in the positions he has selected, ensures the vehicles are adequately camouflaged, and instructs the drivers to monitor the radios and provide local security for the squad with the vehicle-mounted weapons.
- c. The squad leader establishes a vantage point of at least two personnel. The vantage point should be equipped with a dismounted radio, vision devices, dismounted automatic weapon for local security, and field telephone.
- d. The squad leader establishes wire communications from the vantage point to the platoon CP, if practical.
- e. The squad personnel are organized as follows--two men at the vantage point; one man monitoring a vehicle mounted radio, manning a vehicle mounted-weapon, and providing local security for the squad; three men resting or supplementing the duties of the other squad members.

TURN THE PAGE

COMMENTS

This test is so poorly described that it cannot be replicated. The reader would not know how to set up the station, conduct the test, or score performance. On the basis of the description one cannot say for certain whether the examinee "places the vehicles", "selects a vantage point", etc. or describes verbally the actions he would undertake or states decisions that he would have to consider (e.g., wire communications to CP).

The Solution and Rationale sheet covers much more information than is called for on the Score sheet. The means of matching or relating the five descriptive paragraphs on the Solution sheet to the six scoreable elements on the Score sheet is not at all clear.

EXAMPLE 2

TASK: Emergency Medical Care - Fractured Limb, Burns

(Entire Tests taken from A Series of Tests)

XX

4. TEST OBJECTIVE: Given a simulated casualty or special situation, the student must apply the proper emergency medical care

XX

FRACTURE

I. Situation. The casualty next to you has just fallen off an APC and apparently injured his leg (arm). Make your estimate and provide any emergency medical care that might be necessary:

II. Scoring.

Yes No Weight Score

A. Check casualty for all injuries:

_____ 1 _____

B. Recognize that casualty has fracture:

_____ 2 _____

C. Apply dressing to wound:

_____ 1 _____

D. Splint fracture:

1. Do not move casualty from position:

_____ 1 _____

2. Do not move fractured limb:

_____ 2 _____

3. Apply padded splint to limb:

_____ 1 _____

4. Immobilize joint just above and below fracture:

_____ 1 _____

5. Apply ties above and below fracture:

_____ 1 _____

Total Weight: _____

10

Total Score: _____

NOTE: All steps must be performed in order. If not done in order, deduct the number of points allocated. In the interest of time, Step D may be spoken.

X X

BURNS

I. Situation. The casualty next to you has been injured as the result of a flash fire. He is conscious. Apply necessary emergency medical care.

II. Scoring.

Yes No Weight Score

A. Check casualty for further injuries:

_____ 1 _____

B. Remove clothing from around burned area:

_____ 1 _____

C. Do not remove clothing stuck to burn:

_____ 1 _____

D. Apply dry sterile dressing to burned area:

_____ 1 _____

E. Treat for shock:

_____ 1 _____

F. Give the casualty salt/soda mixture (if casualty is conscious):

_____ 1 _____

Total Weight: _____ 6 _____

Total Score: _____

X X

GENERAL INSTRUCTIONS

I. General. This appendix outlines the general operation of this station, with specific ideas for test preparation and administration.

II. Operation.

X X

B. Simulated casualties may be live demonstrators, mannequins, or inflatable dummies depending upon local conditions. Each injury should be presented using the Moulage Set, War Wound, FSN 6910-540-6378, and should bleed if appropriate. If live demonstrators are used, additional realism can be obtained by having them groan and scream as appropriate.

TURN THE PAGE

COMMENTS

Two tests have been selected from a set of tests on emergency medical care to illustrate frequent errors in first aid testing. First we would like to comment on the "Situations" described in both "Fracture" and "Burn" tests. The Fracture test and the Burn test should be written to provide a detailed description of a particular location of injury so that the Test Administrator knows what preparations should be made, knows what he is to observe in scoring, and to maintain standardization of the test for different examinees. In particular, for the Burns test, the area that has been injured (e.g., a small portion or burns over the entire body?) is not given. In the Fracture test, no information is given as to whether the victim is conscious. In short, the instructions to the Test Administrator describing the test conditions are inadequate. Included in this criticism is the failure to specify whether a live demonstrator or dummy is to be the victim. Leaving this last detail to the discretion of the Test Administrator (and the dummies or manikins to which he has access) is an error that can be eliminated by specifying that a live demonstrator will be used. Under "General Instructions", the recommendation that "If live demonstrators are used, additional realism can be obtained by having them groan and scream . . ." is an invitation to unstandardized conditions for testing at best, and can result in a total lack of credibility at worst.

Perhaps the most typical error is to leave unspecified the manner in which "Check casualty for all (or further) injuries" is to be scored. If the intention is to score an examinee's statement of what he would do, the score sheet should specify the information he is to communicate. Ideally of course, there are procedures to be followed in checking for other injuries that could be observed by the Test Administrator and scored as part of the performance.

In the "Fracture" test, scoring the examinee for recognizing the fracture is not only superfluous, but could invalidate the test if all scoreable steps must be performed correctly to receive a passing score. That is, an examinee might fail to state what the injury is, yet proceed to apply a proper splint. In the same test: "C. Apply Dressing to Wound" is inexplicable since no information is given for the Test Administrator or examinee that there is to be a simulated wound.

In the Burns test, the lack of specificity of the simulation of the injury makes it unclear whether the examinee is to be tested for knowledge (verbal statements) or for behavioral procedures he demonstrates. Steps D and E are both made up of scoreable elements that should be separated.

Finally, the statements for each scoreable step should not be written as directions to the examinee, but as descriptions of behaviors that he carries out, e.g., "Does not move fractured limb" or "Maintains fractured limb in original position".

EXAMPLE 3

TASK: Indirect Laying (Gunner's Duties)
(Entire Test)

1. INDIRECT LAYING, DEFLECTION ONLY,

m114A1

a. Scope of test:

(1) Three tests will be conducted to determine the students ability to perform the duties of the gunner during firing with emphasis on special corrections and aiming post displacement.

(2) Tests 1, 2, & 3 will be executed as one series of commands.

b. Special Instructions.

(1) The piece will be laid in center of traverse, DF ²⁴⁰⁰ QE 300, all scales on azimuth micrometer set at zero, and bubbles centered.

(2) Aiming point will be emplaced to the left front so that 10 mils of displacement results.

(3) One trail will be raised to give approximately 10-20 mils cant to the trunnions.

(4) Commands in C below will not require shifting trails.

(5) The examiner will designate the section number of the weapon to be used.

(6) The examiner will brief the student prior to examination. The briefing will include the following:

(a) That the test will examine the student's knowledge of the gunner's duties during indirect firing.

(b) Positive identification of aiming posts and alternate aiming point.

(c) When the student has completed laying the weapon for direction, he is to announce READY in a loud and clear voice and step clear of the weapon.

c. Outline of Tests.

<u>Test No</u>	<u>Examiner Commands</u>	<u>Action of Student</u>
1	DEFLECTION 2490, ON 3 CLOSE (OPEN) 5. (For example)	(1) Applies special corrections to gunner's aid and sets deflection. (2) Traverses piece until correct sight picture is obtained. (3) Centers bubbles and rechecks sight picture. (4) Calls READY and steps clear.

<u>Test No</u>	<u>Examiner Commands</u>	<u>Action of Student</u>
2	DEFLECTION 2360 (MAX SHIFT 180 μ , MIN SHIFT 140 μ).	(1) Sets Deflection, leaves correction on gunner's aid. (2) Same as Test 1 above.
3	END OF MISSION	(1) Gunner's aid set at zero. (2) Relays on deflection 2400

d. Penalties. Penalties for each test will be assessed as follows.

- (1) Deflection set incorrectly: -4
- (2) Gunner's aid set incorrectly: -4
- (3) Last motion of traverse not to the right: -2
- (4) Gunner did not command ready: -2
- (5) Either or both bubbles not centered: -4
- (6) Displacement not compensated for: -6
- (7) Time exactly or less than:

Test 1	Test 2	Test 3	
50 sec	35 sec	20 sec	-0
70 sec	50 sec	35 sec	-1
70 sec+	50 sec+	35 sec+	-3
- (8) Stop tests 1 and 2 at 2 minutes and cut for all steps not performed.
- (9) Stop test 3 at 1 minute and cut for all steps not performed.
- (10) Max Credit for Test 1 25 points.
 Max Credit for Test 2 25 points.
 Max Credit for Test 3 23 points.

TURN THE PAGE

COMMENTS

The information contained in this test needs to be reorganized and expanded. Under "Scope of Test" the tests should at a minimum be named in a.(2). The "Special Instructions" should be identified as those for the Test Administrator's preparation prior to the arrival of the examinee. Under b. parts (5) and (6) should be removed and placed in a section indicating that they are Instructions to Examinee and should be written in the words that would be read to the examinee.

For Skill Qualification Test development, the test constructor should consider whether the examinee should be explicitly told ". . . to announce READY . . . and step clear of the weapon" or whether this instruction overcues performance.

For purposes of scoring, the behaviors must be provided in more detail and scored on a pass/fail basis rather than as differential penalties.

The criteria for timing tests 1 through 3 (assuming that differential penalties are not applied) suggests that variations in performance are anticipated and to some degree are acceptable. The criteria therefore, for time of performance should probably be stated within an acceptable range, e.g., for test 1, 10 seconds or less.

DIRECTIONS

Observe the student for proper performance and evaluate him by checking the appropriate column below for each step. Steps not performed within the 4 minutes allotted time will be checked as incorrect. Each step performed correctly will be valued as indicated.

Did the student:

1. Use the TM?

Note. When the student picks up the TM, refer him to page 2-85 as his reference.

2. Select the proper scale and range?

3. Utilize test equipment properly?

4. Detect the defective lamp?

Correct	Incorrect	Wt
		1
		1
		1
		2

COMMENTS

Since only part of task performance is being tested here, the written description of the situation attempts to create an image of the entire task. The total amount of information given in the situation could be confusing to some examinees. It would be simpler to say "Someone has been checking the bilge pumps and found that the ON indicator light does not come on for the front bilge pump."

Both "Purpose" and "Directions" state that this is a test of the examinees' (student) ability to check the operation of the bilge pump. Clearly, there is a mis-match and either the test objective or the test content should be revised.

As a general rule, it is not appropriate to score for the use of a TM, for it penalizes an examinee if he can perform successfully without it. In some instances, the use of a TM or other job aid is an absolute requirement in task performance, e.g., in order to protect valuable equipment and/or where the threat of physical injury is great (as in the use of a pre-flight check list). In the performance of such tasks, the use of the job aid is considered part of the required task behavior and would properly be scored.

In this example, however, while the use of the TM may be required in training, it is unlikely that its use would be mandatory in an actual job situation. Also, to maintain standardized conditions, all examinees should be given the same information (i.e., the proper page numbers) regardless of whether they pick up the manual or not. Otherwise the page number information should be withheld from all examinees.

The scoreable elements are not adequately described; the proper scale and range of the multimeter should be specified as should the standards of proper test equipment usage.

The four-minute time limit is questionable given that a manual and multimeter are intended to be used.

EXAMPLE 5

TASK: Checking Clearance Between 2nd GP Nozzle and
2nd GP Rotor Disc on T-55 Turbine Engine.

(Entire Test)

STATION NUMBER 1

TASK:

At this station you will demonstrate your ability to check the clearance between the 2nd GP nozzle and GP rotor disc.

INSTRUCTIONS:

1. You will be required to complete the above assigned task utilizing the equipment and TM's available to you at this station.
2. Upon completion of this task you will remain at this station until further directed by the instructor at this station.
3. If you do not understand what you are to do ask the instructor at this time. Once you begin this task the instructor cannot assist you.

SCORING:

The instructor at this station will grade your grade sheet as you complete each item. Scoring will be based on your ability to successfully complete each step in assigned task. You may accrue up to 25 points at this station.

TIME:

You will have 30 minutes to complete the task at this station.

A. <u>PROCEDURE:</u>	<u>MAX POINTS</u>	<u>EARNED POINTS</u>
1. Locate task in manual TM 55-2840-234-24/2 Pg 3-56A NOTE: ALLOW ONLY FIVE MINUTES	1	_____
2. Place parallel bar on second stage G.P. nozzle and measure from bar to rear face of inner shroud, "Dimension A". NOTE: ALLOW ± 0.005 " ERROR	3	_____
3. Measure from bar to rear mating surface of 1st G.P. turbine spacer "Dimension B". NOTE: ALLOW ± 0.005 " ERROR	3	_____
4. Subtract dimension b from dimension a for result a.	1	_____
5. Place parallel bar on forward face of hub of 2nd G.P. rotor disc and measure from bar to outer rim aft face of 2nd G.P. rotor disc. NOTE: ALLOW ± 0.005 " ERROR	3	_____
6. Measure from bar to 2nd G.P. rotor disc spacer mating surface. Dimension C. NOTE: ALLOW ± 0.005 " ERROR	3	_____
7. Subtract dimension recorded in step d from dimension in step c.	1	_____
8. To determine clearance, subtract dimension recorded in step f from dimension recorded in step e.	3	_____
9. Checks for limits, ref #98, table 11-4.	2	_____
10. Completes task in allotted time.	3	_____
 B. <u>CARE AND USE OF TOOLS:</u>		
11. Student places vernier depth gage in storage case when finished.	2	_____
TOTAL	25	

COMMENTS

In this test the Test Administrator is to allow the performer only five minutes to locate the task in the manual. (See first Note under A. Procedure.) However, the performer is not told this, but he should be told. Actually, scoring for locating the task in the manual should not be done since a man may be able to perform the task without needing the manual and would, therefore, be penalized.

For Skill Qualification Testing purposes, the weighted scores should be dropped and only checks used for each of the scoreable steps. Also, giving credit for "10. Completes Task in Allotted Time" would not occur in Skill Qualification Testing. A person who fails to complete a test in the allotted time would be a "no go" rather than losing "points" on a test.

With the changes suggested above, this would be a good candidate for Skill Qualification Testing.

EXAMPLE 6

TASK: Demonstrate Procedure for Determining Sediment and Contamination by Millipore Test Method and Calculate and Report Results From a Set of Sample Test Results.

(Entire Test)

The student will be required to demonstrate the correct procedure for determining sediment and contamination by the millipore test method: and render correctly reported results from a set of sample test results given to him by the instructor. The effectiveness of the demonstration, correctness of answers to questions, and correct reporting of results will be graded.

WT
(2)

1. Q. Before sampling what is the sample container rinsed with? _____

A. Filtered N-Hexane or Petroleum Ether.

(1) 2. Q. What is the preferred sample container? _____

A. Glass bottle.

(3) 3. Q. Why is the blank filter run? _____

A. (1) To compensate for reactions of solvents on the filter,
(2) Absorption of fuel by filter, and (3) Changes in humidity.

(2) 4. Q. If the sample is taken from a pipeline system, should it be taken before or after passing through the filter separator? _____

A. After passing through the filter separator.

(3) 5. Q. How do you prepare the membrane filter prior to running the test? _____

A. Dry in $90^{\circ}\text{C} \pm 5^{\circ}\text{C}$ oven for 30 minutes, allow to cool for 30 minutes in a desiccator and weigh to four (4) decimal places on the analytical balance.

(3) 6. Q. How do you handle the test filters? _____

A. With forceps, so as not to be more than 1/8 inch from the edge of the filter.

(4) 7. Q. What is the procedure for cleaning the apparatus before running the test. _____

A. Wash with hot water and soap, rinse twice with distilled water, rinse with filtered isopropyl alc. and rinse with filtered N-Hexanes.

(2) 8. Did student shake sample container before using sample? _____

(4) 9. Was the equipment grounded before test was started? _____

(1) 10. After filtering sample, was filter funnel rinsed with petroleum ether or N-Hexane? _____

(5) 11. Lab Conduct. _____

(70) 12. Calculate and report the results of the following millipore test. _____

Initial Blank Filter wt. 0.0930 gms

Initial Sample Filter wt. 0.924 gsm

Final Blank Filter wt. 0.0929 gms

Final Sample Filter wt. 0.0931 gms

COMMENTS

This test is a mixture of a knowledge test (items 1 through 7) and a performance test that is partially process scored (items 8 through 11) and partially product scored (item 12).

In items 1 through 7, asking for information orally in a "performance" context does not constitute a performance test. (A conventional paper and pencil test could easily be used for the first part of the test.)

Instructions to the examinee are totally lacking. It is not at all clear what initiates performance in item 8.

The process scored items (8 through 11) are insufficient for recording the adequacy of behavior observed during the conduct of the millipore test. Item 11 does not specify the behaviors to be observed in scoring "Lab Conduct".

The manner in which the product (item 12) is to be scored is not given. A range for acceptable values of the weights in the quantitative analysis would be a more reasonable standard.

The weighted scores should be dropped and only checks used for each scoreable step (in process scoring) or each scoreable characteristic (in product scoring).

As currently designed, this test would not be adequate for Skill Qualification Testing.

EXAMPLE 7

TASK: Energizing, Checking, and Troubleshooting Operations Central.

(Excerpts from Test)

X X

4. DIRECTIONS TO STUDENTS

a. This examination will test your ability to logically troubleshoot the operations central to include energizing; switch settings and operational checks; proper setup, calibration, and use of the oscilloscope; symptom recognition; use of schematics; location of trouble; and safety precautions.

X X

5. NORMAL SWITCH SETTINGS [From the Instructor's Manual]

CHECKOUT PROCEDURE

a. Preliminary control settings prior to energizing (table I).

Table I. Preenergizing control settings

<u>Unit</u>	<u>Switch or control</u>	<u>Position</u>
Master control panel	SYSTEM POWER	OFF
AN/TSQ-36 test panel	ENC REF S2	OFF
	DEC REF S3	OFF
AN/TSQ-36 LVPS	+4.5V and -20V SUPP S1	OFF
AN/TSQ-36 HVPS	DC ON S1	OFF (down)
	AC ON S2	OFF (down)
RELAY POWER SUPPLY	CIRCUIT BREAKER CBL	OFF
AC-DC protective panel	DC POWER	OFF
	CENTRAL POWER control	
Communication power protector	POWER switch S1	OFF
	RINGER switch S2	OFF
Consoles 1 and 2	INTENSITY R14	Fully ccw

b. Energizing procedure.

Table II. Energizing control settings

Switch setting	Position
Apply ac prime power.	Refer to power unit.
Set SYSTEM POWER (CBI) at ON.	Applies prime power to all OC circuits except the air conditioner and heater.
On ac-dc protective panel, set CENTRAL POWER control CBI at ON.	Applies prime power to power supplies.
Observe AC MONITOR meter M1 on ac-dc protective panel while operating PHASE SELECTOR switch S1.	Meter M1 should indicate redline $\pm 5\%$ for phases A, B, and C.
Set AC ON switch S2 on AN/TSQ-36 high-voltage power supply at ON (up), and set +4.5v and -20v SUPP switch S1 on the low-voltage power supply at ON. Set DC ON switch S1 on AN/TSQ-36 HVPS at ON (up). Measure TSQ voltage on electrical test panel.	
Observe DS1 through DS8 POWER SUPPLY OUTPUT indicators on ac-dc protective panel.	Lighted, indicating output from power supplies.
Set DC POWER switch S3 on ac-dc protective panel at ON.	Applies dc power to OC circuits.
Observe DC MONITOR meter M2 while turning VOLTAGE SELECTOR S2 through its eight positions.	Meter M2 should indicate redline $\pm 1\%$ for each position.
After warmup, set EN REF switch S2 and DEC REF switch S3 on TSQ-36 test panel at INT (up).	Meter M2 should indicate ± 1 percent for ENC REF and DEC REF for each position.
Set CBI on relay power supply at ON.	Drawer B28 must be pulled out to gain access to CBI.
Set POWER switch S1 on communication power protector panel at ON.	Applies -28v and -26.5v to voice communications circuits.
Set RINGER switch S2 on communication power protector panel at ON.	Applies ringing voltage to voice communications circuits.

6. PRELIMINARY CONTROL SETTINGS FOR OC DAILY CHECKS

Table III. Preliminary control settings, OC daily checks

Location	Control	Position
AN/TSQ-36 test panel	REC LINE S4	EXT
	ENC REF S2	INT
	DEC REF S3	INT
AN/TSQ-36 transmitter	CONTINUOUS/REMOTE START	REMOTE START
	PC	UP
	CDG/TAC-OC S60	OC
	AUX 1	TRUE (up)
	AUX 2 through 10	FALSE (down)
	P _H 1 through 10	FALSE (down)
	P _X 1 through 13	FALSE (down)
	P _Y 1 through 13	FALSE (down)
	SGL SCALE/DBL SCALE S48	DBL SCALE

X X

[The remainder of Table III and all of Table IV have been omitted; they are similar to Tables I and II.]

SCORESHEET

Note. Indicate student performance with a check in the proper space.
References are to Administrators' Manual.

1. INITIAL PROCEDURES

- a. Properly positioned required switches prior to and after energizing OC.
(Ref item 5a and 6)

REMARKS:

YES	NO	POINTS
		5

- b. Properly energized the OC.
(Ref item 5b)

REMARKS:

YES	NO	POINTS
		5

2. OC DISPLAY CHECKS

- a. Properly performed sweep checks.
(Ref item 7d)

REMARKS:

YES	NO	POINTS
		3

- b. Properly performed the AUX 1 TRUE checks.
(Ref item 7b)

REMARKS:

YES	NO	POINTS
		3

X X

6. PROPER USE OF SCHEMATICS

REMARKS:

YES	NO	POINTS
		3

7. PROPER USE OF TEST EQUIPMENT

REMARKS:

YES	NO	POINTS
		4

8. OBSERVED SAFETY PRECAUTIONS

REMARKS:

YES	NO	POINTS
		3

COMMENTS

While the "Directions to Students" indicate the kinds of activities that are to occur in the test, the examinee is not actually directed to perform a task. Some standardized direction is needed to initiate test behavior among examinees.

The score sheet provides for scoring at a gross level only, whereas the instructor's manual contains detailed scoring instructions. The detailed instructions should be incorporated into the score sheet. Also, the examinee is scored for some general behaviors (i.e., "6. Proper Use of Schematics", "7. Proper Use of Test Equipment", and "8. Observed Safety Precautions") but the Test Administrator is given no guidance on how these elements are to be scored.

EXAMPLE 8

TASK: Preparing Military Police Reports.

(Excerpts from Test)

SECTION I. INSTRUCTIONS TO EVALUATOR

1. Objective of the Evaluation: File Number FH 416. This evaluation will determine the student's ability to complete a Military Police Report (DA Form 3975), a Rights Warning Procedure/Waiver Certificate (DA Form 3881), a Sworn Statement (DA Form 2823) and a Military Police Receipt for Property (DA Form 19-31).

X X

3. During the Evaluation:

a. Prepare students for evaluation.

(1) Assign each student an evaluation site.

(2) Read verbatim, Section II, of these instructions to each student you evaluate. (This is required only on the first evaluation. On the second or third evaluation you may ask the student if he/she remembers these instructions and if they do you need not repeat it. If they do not then repeat the instructions.)

(3) Issue each student one evaluation situation, one blank Military Police Report, one Sworn Statement, one Rights Warning Procedure/Waiver Certificate and one Military Police Receipt for Property.

X X

SECTION II. DIRECTIONS TO STUDENTS

1. Action: This is an evaluation of your ability to complete a Military Police Report (DA Form 3975), a Rights Warning Procedure/Waiver Certificate (DA Form 3881), a Sworn Statement (DA Form 2823), and a Military Police Receipt for Property (DA Form 19-31).

X X

SITUATION C

You and your partner, PFC James D. Stack, SSN: [REDACTED] are assigned to the 140th MP Company, Fort Gordon, Georgia. You are performing town patrol in Augusta, Georgia, when you observe a soldier in a Class A uniform enter an OFF LIMITS bar, Sue's Place, 1273 East Avenue at 2100 hours, today's date. You enter the bar and inform the soldier that it is OFF LIMITS and ask him to leave but he refuses. You apprehend the soldier, take him out of the bar, advise him of his legal rights, and search him. The individual's identification reveals him to be SP4 Albert Andrew Duncan, SSN: [REDACTED] Company A, 381st Engr Bn, Fort Gordon, Georgia. He is [REDACTED] Fair complexion, Race-Caucasian, no marks, scars, or tatoos, Date of Birth: 12 Mar 51, Place of Birth: Los Angeles, California, Home of Record: Seattle, Washington. After obtaining the above information you escort him to the Military Police Station, prepare a Military Police Report (DA Form 3975), a Rights Warning Waiver Certificate (DA Form 3881), a Sworn Statement (DA Form 2823), and a Military Police Receipt for Property (DA Form 19-31), prior to placing him in the detention cell. Your desk sergeant's name is SSG Billy O. Fischer.

The below listed property was obtained from the individual:

Wallet, brown leather containing miscellaneous papers and pictures and monies: (1) twenty dollar bill, D43217872F; (2) one dollar bills, A54891230B, A54442287; and (1) quarter dated 1971. Silver Zippo lighter and ID Card #170843.

COMMENTS

This test omits the requirements that the Military Policeman obtain the various kinds of information himself and make decisions about what forms should be filled out. In the "Directions to Students" the forms are named and in fact, looking at the "Instructions to Evaluator", we see that the Evaluator issues the forms to be completed.

These changes in task boundaries and omissions, changes in cues, and changes in behaviors required would be critical in Skill Qualification Testing.

EXAMPLE 9

TASK: Entering a Radio Net.

(Entire Test)

You are trying to enter a radio net. The net control station requests you authenticate Tango Victor. Given the attached authentication table, what should you respond?

- a. Whiskey
- b. Quebec
- c. Romeo
- *d. Delta

FOR TRAINING PURPOSES ONLY

Row
design-
nator

Sample authentication system No. _____
effective 0001 to 2400 hr. 1 March 65

0 A	E C B X K Z O V J L M G S T F W I Y A D H P R Q N U
1 B	O T H P F W X K E D Z Y A L N S C J V B Q R M G I U
2 C	X N C E T S G Q R P H D Q Y I B W M J L V U O Z K F
3 D	T Z D E H W V J K X C A Y U I G S R Q O F B L N P M
4 E	W D V R H K X Y L N Z G E U B C J S T P M F I A O Q
5 F	M P N L B F O Q R S G I U Y A C X K J V W H E D Z T
6 G	J V U P C W O Z Y T K X S G Q E R I D A F M L N H B
7 H	U I G M R Q B V J C S N L A Y Z D E K X W F P H T O
8 I	B Q R T M G I U H P F S Y A C W K N X L E D Z O J V
9 J	B H N K M F A D I R Q G S X L T Y Z O W P U V J E C
K	K F M J P U N Y B H O A R X Z V D T C G W E S Q L I
L	Q R D A M X L N H K U I V P C J B F O S W E T Z Y G
M	H G M L D Y A T S Z K X B C O Q R P I W J V E U N F
N	V J O Z D E K X N L W C A Y S F P H U I G M T R Q B
O	A T J V E U O Q R P Y S Z K X B C I W N F H G M L D
P	M A D I K T E Q G V S O F B W H N L X Y Z J R C P U
Q	F N U E V J W I P R Q O C B X K Z S T Y A D L M G H
R	Z N T S Y J F U E C X B K W H I R Q O A V D L M P G
S	G Y Z T E W S O F B J C P V I U K H N L X M A D R Q
T	Q O A I F M P T S J C B U E G Z N L Y X K H R V D W
U	U P C R J Z Y X L N H W B F O S V G Q E T K I D A M
V	G P M L D V A O Q I H W K X B C E U F J Y S T N Z R
W	U N Q R P H D A Y I W F T S G M L J V O Z K X B C E
X	I L Q S E W G T D V C Z X R A O H B Y N U P J K M F
Y	D L M G H F N W I C B X K Z S Y P R Q O U E V J T A
Z	M P H O A R L G W E S Q K J X Z U N Y B V D T C I F

FOR TRAINING PURPOSES ONLY

COMMENTS

This test omits operating the radio and giving call signs and other procedural steps that precede the challenge.

Use of a multiple choice format is an unnecessary and artificial deviation from true task performance.

The change in the task boundary would be critical in Skill Qualification Testing.

EXAMPLE 10

TASK: Starting Procedures on the 600 CFM Air Compressor
(a part of Quarry Blasting Operations).

(Excerpts from Test)

X X

TEST SITUATION:

"You are a newly assigned powderman. Your supervisor has asked that you demonstrate your proficiency in performing before-operation services and starting procedures of the 600 CFM Air Compressor. Take the appropriate action."

PERFORMANCE MEASURE 1:

The student demonstrates to the tester proper before-operation checks.

- a. Check coolant level. Coolant must be above baffle plates of the radiator.
- b. Check fuel level. Fill as required.
- c. Check fuel filters. Drain approximately one pint of fuel from each filter to remove water and sediment.
- d. Inspect tires for cuts and bruises. Inflate to 45 psi.
- e. Check all fuel lines, pipes and hose connections for leaks.
- f. Made visual inspection of all controls, pipes, hose, wiring, and switches for insecure mountings and loose or missing bolts and screws.
- g. Check for any tampering or damage to compressor.
- h. Check all instruments and gages for broken glass and insecure mountings.
- i. Check for publications.
- j. Check for leaking fire extinguisher or one with a broken seal.
- k. Insure that there is proper ventilation.
- l. Check fan and generator belts for proper tension. 3/4 inch deflection between pulleys.
- m. Insure that all tools and equipment are clean and in a serviceable condition.

- n. Insure that all surfaces on the air compressor are clean and free of all dirt, grease, and oil.
- o. Check compressor oil level gage.
- p. Check compressor air cleaner.
- q. Check engine air cleaner.
- r. Check engine oil dipstick. Add oil as required.
- s. Check electrolyte level of batteries.

PERFORMANCE MEASURE 2:

The student demonstrates to the tester the proper starting procedures.

- a. Place solenoid link rod and damper lever in the open position.
- b. Open discharge gate valve and service valves.
- c. Pull out throttle control knob and latch it in the 1,000 rpm hole in the governor control lever.
- d. Push in engine stop control.
- e. Pump the fuel priming pump until the fuel pressure registers the correct pressure on the gage.
- f. Push the starter switch.
- g. Close the discharge gate valve as soon as the engine starts.
- h. Allow the compressor to build up air and unload.
- i. Allow engine to reach operating temperature.
- j. Pull out throttle control knob and release governor control lever.

X X

COMMENTS

Behaviors to be observed and scored are specified at a good level of detail (in spite of the fact that no score sheet has been provided).

This is a test of part of a task since it can be assumed that at the very least, a performer of the actual job task would also go through the stopping procedures for the compressor. This does not seem to be a serious flaw in this test, however.

As a candidate for a Skills Qualification Test, the performance measures are good, if they are accompanied by a score sheet displaying each of the behaviors for individual scoring. The condition that the compressor should be in at the beginning of the test, needs to be included in Instructions to the Test Administrator. If this information is omitted, the test is not standardized.

EXAMPLE 11

TASK: Armor Offensive Actions

(Excerpts from Test)

I/AHN COC PERFORMANCE EXAMINATION

STATION #1 OFFENSE

1. GENERAL SITUATION: You are the tank commander of tank 25, second platoon company C 2-34 Armor. Your platoon has been ordered to secure the east half of objective "BUCK" (SEE TERRAIN BOARD).
2. SPECIAL SITUATION: At the present time your platoon is moving from the assembly area to the line of departure. In the platoon leaders initial estimate, he considers that enemy contact is "not likely"; therefore, he initiates the hand and arm signal for the platoon to move in "Traveling Technique" of movement.
3. FIRST REQUIREMENT: Arrange the model tanks in the "Traveling Technique". Indicate your position as tank 25. Demonstrate the hand and arm signal for "Traveling".
4. SPECIAL SITUATION: As the platoon continues to move, it approaches terrain where enemy "Is Possible". The platoon leader initiates the hand and arm signal for "Traveling Overwatch" technique of movement.
5. SECOND REQUIREMENT:
 - a. What is the mission of the light section in "Traveling Overwatch"?
 - b. As tank commander of 25, what are your actions with regard to 24 during "Traveling Overwatch"?
 - c. Demonstrate the hand and arm signal for "Traveling Overwatch".
6. SPECIAL SITUATION: Your platoon is now moving into an area believed to be under enemy control. The platoon leader expects to make contact with the enemy, he therefore decides to advance employing "Bounding Overwatch". The platoon leader signals for the light section to "Cover My Move".
7. THIRD REQUIREMENT: Demonstrate the hand and arm signal for "Cover My Move".
8. SPECIAL SITUATION: Your platoon sergeant of tank 24 moves toward a nearby wooded hill and you lose sight of him.
9. FOURTH REQUIREMENT: What are your actions?

X X

1. SOLUTION TO FIRST REQUIREMENT (12 Points)
 a. Arrange heavy section first followed by light section 4 points
 b. Place tank 25 in light section 4 points
 c. Correct signal for "Traveling Technique" 4 points
 REQUIREMENT TOTAL 12 POINTS

2. SOLUTION TO SECOND REQUIREMENT (11 Points)
 a. Drop back and provide "Overwatch" for movement of the heavy section 3 points
 b. Maintain visual contact with heavy section 3 points
 c. Be alert for instructions from your section leader to direct you to your "Overwatch" position 2 points
 d. Signal for "Traveling Overwatch" 3 points
 REQUIREMENT TOTAL 11 POINTS

3. SOLUTION TO THIRD REQUIREMENT (4 Points)
 a. Hand and arm signal for "Cover My Move" 4 points
 REQUIREMENT TOTAL 4 POINTS

4. SOLUTION TO FOURTH REQUIREMENT (4 Points)
 a. Move to a better position to regain visual contact . . 4 points
 REQUIREMENT TOTAL 4 POINTS

X X

COMMENTS

This test, with the exception of the demonstration of hand and arm signals, is a knowledge test, not a performance test. Asking for information about hypothetical events in a simulated (terrain board) context does not constitute performance. To approximate performance, the examinee would have to acquire information directly from the simulation and take whatever actions he deemed appropriate (rather than responding orally to questions from the Test Administrator). Task boundaries and cues have been altered or deleted entirely so as to eliminate anything that can be legitimately called task performance. In such instances, knowledge testing is quite reasonable, but should be recognized as such rather than incorrectly assumed to represent performance.

EXAMPLE 12

TASK: Tools Identification

(Excerpts from Test)

1. PURPOSE

This station tests the student's ability to identify special tools that are used during the performance of a quarterly service on the M113A1 armored personnel carrier.

2. TIME ALLOTTED
Four minutes.

3. ORGANIZATION, TOOLS, EQUIPMENT, MATERIALS, AND INSTRUCTIONAL AIDS

a. This station will be organized to accommodate 2 students simultaneously under the evaluation of 1 instructor.

X X

d. Two station requirement sheets will be on hand with the instructor.
e. At this station:

(1) Prior to the arrival of the class, ensure that:

(a) One table has the following tools displayed:

- 1. Torque wrench adapter (power plant universal joint cap screw).
- 2. Sling (power plant and differential).
- 3. Lifter (front and rear roadwheels).
- 4. Gage (sprocket).

(b) On the other table these tools will be displayed.

- 1. Fixture (track).
- 2. Remover (shock absorber).
- 3. Sling (final drive).
- 4. Torque wrench adapter (transfer case mounting bolts).

Note. Have TM 9-2300-257-20 displayed on each table.

X X

(2) Prior to the arrival of each student, ensure that necessary tools, material, and instructional aids are repositioned as required.

4. INSTRUCTOR DUTIES

X X

Note. When the student picks up the TM, inform him that the information he needs for this test is on page 2-10 and 2-11.

X X

1. DIRECTIONS

- a. This station tests your knowledge of special tools.
- b. You have 4 minutes to complete this requirement.
- c. The instructor at this station will observe and evaluate your performance.

2. SITUATION

In this display are special tools that are used during the performance of a quarterly service on an M113A1 APC.

3. REQUIREMENT

Explain the purpose of each tool:

	(Wt)
a. _____	1
b. _____	1
c. _____	1
d. _____	1

COMMENTS

This is not a test of a task in that tool identification is not performed independently of other activities directed toward a larger goal.

If the examinee is expected to use the TM, he should be told to do so in the instructions. Since the performer who picks up the manual is immediately told what pages to turn to, a man who does not pick it up (perhaps, not knowing the names of the tools, he is uncertain how to look them up) is at a great disadvantage. Standardization of instructions is lacking since only some examinees get additional information after the test begins.

If the purpose of the test includes assessment of a man's ability to use a manual, however, then specification of relevant page numbers clearly defeats the purpose by overcueing.

EXAMPLE 13

TASK: Identify Repair Parts

(Excerpts from Test)

1. PURPOSE

This station tests the student's ability to identify repair parts using the TM 9-2300-257-20P.

X X

3. ORGANIZATION, TOOLS, EQUIPMENT, MATERIALS, AND INSTRUCTIONAL AIDS

a. This station will be organized to accommodate 2 students simultaneously under the evaluation of 1 instructor.

X X

e. At this station, prior to the arrival of each student, ensure that there are two tables set up with:

- (1) Table no. 1:
 - (a) Seal, plain encased, FSN 5330-679-9879, page 3-137, fig 115, item 19.
 - (b) Switch lever stop light FSN 5930-796-8845, page 3-61, fig 47, item 1.
 - (c) TM 9-2300-257-20P.
- (2) Table no 2:
 - (a) Switch, sensitive, FSN 5930-841-1506, page 3-122, fig 101, item 18.
 - (b) Indicator dial, FSN 6625-580-3881, page 3-48, fig 39, item 5.
 - (c) TM 9-2300-257-20P.

X X

1. DIRECTIONS

- a. This station tests your ability to identify repair parts using the 20P TM.
- b. You have 4 minutes to complete this requirement.
- c. The instructor at this station will observe and evaluate your performance.

2. SITUATION

You have been issued several repair parts to install on a vehicle during its quarterly service.

3. REQUIREMENT

Identify the parts on this table (list below):

	(Wt)
a. _____ Item	2
b. _____ Item	2

COMMENTS

This appears to be a totally artificial test in that, identification of repair parts is not - in and of itself - a real task. Also, the two parts to be identified provide only a trivial sample of a person's ability to identify repair parts.

EXAMPLE 14

TASK: Operation of Squad Radio (Entire Test)

OPERATION OF THE SQUAD RADIO

This is the pre-test to Lesson 010-071-1002-F. "The Operation of the Squad Radio". It tests every objective that this lesson will cover. It is given to see how much you already know about the Squad Radio. Each soldier must get at least 51 of the 64 total responses correct to score 80%. Also, if the soldier misses any of the test items identified by an asterisk (*), he must take the lesson. For grading purposes, each response counts as one point (i.e., in question 2, (a) counts as one, (b) counts as one, (c) counts as one, etc.). Read each question carefully and do exactly as it says. When you reach question two (2), notify the test administrator and he will play the jamming signals for you.

1. Perform the following tasks on your Squad Radio. Have the test administrator watch as you do them.

a. Attach receiver antenna to the Receiver, AN/PRR-9.

* (1) Loosen the antenna retaining screw by turning it counterclockwise and remove.

* (2) Fit lower end of antenna (the end with the hole) between the two threaded members of the antenna housing.

* (3) Replace antenna retaining screw through housing and antenna. Do not tighten.

(4) Rotate antenna to position perpendicular to long dimensions of the receiver.

(5) Tighten antenna retaining screw securely with finger pressure. Do not overtighten.

b. Attach lanyard to the Receiver, AN/PRR-9.

(1) Place loop end of lanyard through eyelet on the receiver.

(2) Pull clasp end of lanyard through loop.

c. Install power source in the Receiver, AN/PRR-9.

* (1) Holding the receiver in one hand, slide the BA-4505/U or BA-505/U battery through the battery retaining clip.

* (2) Mate the battery connector with the battery contact pins on the receiver insuring that the larger pin mates with the larger hole in the battery. Push firmly into place.

- * (3) Place the receiver control in the counterclockwise or OFF position.
- d. Install the Receiver AN/PRR-9 to steel helmet.
 - (1) Remove the helmet liner.
 - (2) Place and push the receiver onto the helmet, over the right ear, so that the rim of the helmet fits all the way into the helmet clips. The receiver control will be to the operators front and the antenna to the rear.
 - (3) Place the helmet liner back into the helmet.
- e. Attach lanyard to the Transmitter, AN/PRT-4A.
 - (1) Place loop end of lanyard through the eyelet on the transmitter.
 - (2) Pull clasp end of lanyard through loop and tighten firmly.
- f. Install power source in the Transmitter, AN/PRT-4A.
 - * (1) Pull transmitter antenna up until it clears the battery case clamps.
 - * (2) Release clamps on battery case, and remove battery case.
 - * (3) Insert BA-399/U battery so that the connector fits the mating pins in the transmitter housing. Push battery firmly into place.
 - * (4) Replace the battery case and fasten the clamps.
- g. Perform operational checks on the Receiver, AN/PRR-9.
 - (1) Turn receiver control completely clockwise. Rushing noise is heard in horn speaker.
 - (2) Turn receiver control until comfortable listening level is heard.
 - (3) Supervisor sends short voice and tone test transmission. Signals are heard loud and clear. Rushing noise heard between transmissions.
 - (4) Turn receiver control completely counterclockwise to OFF position, then turn clockwise to approximately 1/2 of total range. No rushing noise heard in horn speaker.
 - (5) Supervisor sends short voice and tone test transmission. Signals are heard loud and clear. Operator adjusts volume level during transmissions. No rushing noise heard between transmissions.
- h. Perform operational checks on the Transmitter, AN/PRT-4A.
 - (1) Set selector switch in CH-1 position and set override spring in center detent position.
 - (2) Press TONE-VOICE switch in tone position. Supervisor should hear a loud and clear tone through his receiver.

(3) Press tone-voice switch in voice position. Speak into microphone. Supervisor should hear the voice signal loud and clear through his receiver

(4) Repeat the above instructions from the CH-2 position. The same results should be obtained.

When you reach this question, notify the test administrator.

2. Distinguish and name the five types of jamming signals.

- a. _____ (Spark)
- b. _____ (Stepped Tone)
- c. _____ (Random Keying)
- d. _____ (Sweepthrough)
- e. _____ (Random Noise)

3. State the methods used to reduce battery failure when exposed to below freezing conditions.

- a. (Preheat batteries in a warm room.)
- b. (Hold against body.)
- c. (In clothing using battery extender cables.)

*4. State the proper procedure for operating the AN/PRT-4A during transmission to maximize transmission range.

- * a. (Raise antenna to full height.)
- * b. (Hold "mike" 1 inch from mouth, speak directly into it.)
- * c. (Keep antenna as vertical as possible - don't touch it to the helmet.)
- * d. (Make transmissions from highest level possible.)
- * e. (Avoid sources of electrical interference.)

5. The most difficult of the jamming signals to recognize is (Random Noise).

6. Explain the procedure used to determine a jamming signal or a defective receiver.

- a. (Remove receiver antenna.)
- b. (If interference continues, receiver is defective.)
- c. (If interference stops, it is possible jamming.)

- *7. List the immediate steps to be taken when enemy jamming signals are experienced.
- * a. (Continue to operate.)
 - * b. (Notify superior.)
- *8. List the steps to be taken to overcome or reduce a jamming signal.
- * a. (Try varying receiver volume by rotating receiver control.)
 - * b. (Try using unsquelched operation.)
 - * c. (Change location so that nearby obstructions screen enemy transmissions.)
 - * d. (Use tone signals, if possible.)
9. State the probable cause and corrective measure to be taken when the receiver control of the AN/PRR-9 is turned completely clockwise and no rushing noise is heard.
- a. (Defective battery: Check for leakage, corrosion, swelling, and replace if necessary.)
 - b. (Antenna installation: Set antenna blades properly in antenna housing.)
 - c. (If antenna and battery are OK: Send to higher maintenance facility.)
- *10. State the probable cause and corrective action to be taken when the signal is weak or is not heard at all when transmitting with the AN/PRT-4A.
- * a. (Incorrect setting of controls: Recheck setting.)
 - * b. (Antenna not extended: Extend antenna.)
 - * c. (Defective battery: Replace battery.)
 - * d. (Evacuate to higher echelon maintenance if trouble is not one of above three.)
- *11. The batteries should be removed from the equipment when it will not be used for more than one day to minimize the possibility of battery _____ (Corrosion) _____, _____ (Swelling) _____, _____ (Leakage) _____.
- *12. State the corrective action to be taken to prevent corrosion, should the equipment be accidentally immersed in salt water.
- * a. (Disconnect the battery.)
 - * b. (Wipe the pins of the battery plug connector within one hour.)

COMMENTS

The task is "Operation of the Squad Radio" and the objective stated is ". . . to see how much you already know about the Squad Radio". Actually, there is a mis-match between the test objective and the content of the first half of the test. What is being measured in part one is the soldier's knowledge of parts coupled with his ability to follow directions. The second half of the test approximates more conventional knowledge tests in asking for information rather than performance.

Since part one is to be process scored, the directions should be written in general terms, i.e., to perform the entire task without a description of the substeps. Once general instructions for the examinee are written, the information given in part one can be made into a useful score sheet.

The problems here are the mis-match of test objective and test content, distortion of task boundaries, and overcueing of performance.

EXAMPLE 15

TASK: Supervise Preparation and Operation of Wrecker Truck Boom.
(Entire Test)

[Instructions to Test Administrator]

1. PURPOSE

This station tests the student's ability to supervise the preparation and operation of the boom on the M543 wrecker truck.

2. TIME ALLOTTED

Six minutes.

3. ORGANIZATION

a. Station will be organized to accommodate 3 students simultaneously under the supervision of 1 instructor.

b. Station will be located as shown in appendix 8.

c. Station number sign will be displayed where approaching students can observe it.

4. TOOLS, EQUIPMENT, AND MATERIALS, AND INSTRUCTIONAL AIDS

a. Three station requirement sheets per station and 1 station answer sheet per student will be on hand with the instructor.

b. Equipment at this station:

(1) Before arrival of the class, ensure that an M543 wrecker truck with BII is rigged for a lifting operation.

(2) While performing the lifting operations, perform the following incorrectly:

(a) Examination A.

1. Extend boom too far (17 feet) (estimated load 10,000 lb).

2. Set engine idle speed too low (900 rpm).

3. Extend boom using crowd control lever only.

(b) Examination B.

1. Shift transmission into fifth gear.

2. Lower 1 outrigger and leave it approximately 1 inch above the ground (the other will be adjusted correctly).

3. Engage power divider and set engine speed at 1,000 rpm.

(3) Before the arrival of each student, ensure that instructional aids are rigged as required.

5. INSTRUCTORS' DUTIES

a. When student arrives at the station, issue him the requirement sheet and answer sheet.

b. Answer only questions he may have pertaining to the requirements.

c. Perform the lifting operation as prescribed.

d. Critique student upon completion of the requirements by pointing out and explaining errors in the operation.

[Instructions to Examinee]

1. PURPOSE

- a. This station is designed to test your ability to supervise the preparation and operation of a lifting operation.
- b. You have 6 minutes to complete this requirement.
- c. The instructor at this station performs the operation. You will observe and evaluate his performance, during which there will be three violations of correct procedure.

2. SITUATION

At this station, the boom is rigged for a lifting operation of 10,000 pounds.

3. REQUIREMENT

Observe the instructor as he prepares the equipment and performs the lifting operation. He will perform three of the operations incorrectly. List the incorrect operations on the answer sheet. TM 9-2320-211-10 will be available.

In the spaces below, list steps of the operation that were performed incorrectly.

COMMENTS

There is a mis-match between the objective of the test and the content of the test. The purpose is to test the examinees "ability to supervise . . ." Instead, he is informed that there will be three violations of correct procedure which he is to detect and record on his score sheet. Any opportunity on his part to actually supervise and correct the faulty performance is not part of the test. Also, it is quite unrealistic to indicate the number of errors that will occur in the performance (overcueing).

EXAMPLE 16

TASK: Supervise Preparation and Operation of Fuel Transfer Pump Operation.
(Entire Test)

[Instructions to Test Administrator]

1. PURPOSE

This station tests the student's ability to supervise the preparation and operation of the fuel transfer pump operation.

2. TIME ALLOTTED

Six minutes.

3. ORGANIZATION

a. Station will be organized to accommodate 3 students simultaneously under the supervision of 1 instructor.

b. Station will be located as shown in appendix 8.

c. Station number sign will be displayed where approaching students can observe it.

4. TOOLS, EQUIPMENT, AND MATERIALS, AND INSTRUCTIONAL AIDS

a. Three station requirement sheets per station and 1 station answer sheet per student will be on hand with the instructor.

b. Equipment at this station:

(1) Before arrival of the class:

(a) Have an operational vehicle with the refuel, defuel equipment displayed.

(b) Have a can or drum to simulate the fuel supply.

(2) Before the arrival of each student, reposition equipment as required for the next student.

(3) Perform the following operations incorrectly.

(a) Examination A.

1. Connect ground wire to nonconductive material.

2. Fire extinguisher not present.

(b) Examination B.

1. Have nozzle loose on gas hose.

2. Set flow regulator setting at 4-1/2.

5. INSTRUCTORS' DUTIES

a. When a student arrives at the station, issue him the requirement sheet and answer only questions he may have pertaining to the requirements.

b. Position students where they can observe the operation.

c. Perform the operation for whichever examination is being given.

d. Critique student upon completion of requirements by pointing out and explaining the errors.

[Instructions to Examinee]

1. DIRECTIONS

- a. This station is designed to test your ability to supervise the operation of the fuel transfer pump.
- b. You have 6 minutes to complete this requirement.
- c. The instructor at this station performs the operation. You will observe and evaluate his performance.

2. SITUATION

The M88 requires refuel; a tanker is providing the fuel. Refuel should be made at maximum allowable rate. During the fuel transfer operation, the instructor/operator will make two safety violations.

3. REQUIREMENT

Observe the instructor as he performs the operation. He will perform two of the operations incorrectly. List the incorrect steps on the answer sheet. TM 9-2320-222-10 will be available.

In the spaces below, list steps of the operation that were performed incorrectly.

COMMENTS

There is a mis-match between the objective of the test and the content of the test. As in Example 15, the purpose of this test is to assess supervisory ability. This test assesses the examinee's detection of two safety violations. Indeed, since he is cued to look for safety violations, the examinee can ignore any other part of the performance. In "real" supervision, all aspects of performance would be observed and errors would be corrected, probably at the time they occurred, by the supervisor.

EXAMPLE 17

TASK: Negotiate Obstacles Employing Proper Techniques
of Individual Movement.

(Excerpts from Test)

X X

3. LESSON OBJECTIVE: To test the student's ability to negotiate obstacles properly and employ techniques of individual movement.

X X

APPENDIX 2: Instructions to Students

I. General. The initial briefing is typed on an acetate-covered clipboard.

II. Initial Briefing.

A. This is Station Eight. At this station you will be required to demonstrate proper techniques of individual movement during both daylight and simulated night conditions. You will perform six different movements. From a starting point, you will move to a covered position. From that position, you will move to another covered position. From that position, you will perform a high crawl used at night. After you have finished the high crawl, you will be directed to perform the low crawl, used during daylight. Finally, you will be directed to move over a log. All of these movements must be performed correctly.

X X

APPENDIX 3: Instructions to Instructors

X X

B. When the student reaches the start point, the AI will command, "ENEMY FIRE, Direct Front". As the student leaves the trench, AI will command "HIGH CRAWL". At the conclusion of the high crawl, AI will command, "LOW CRAWL TO LOG". After the student reaches the log, AI will command, "MOVE OVER LOG".

X X

II. Assistant Instructors. Five AIs are required at this station to grade 10 students. Each AI will conduct two cadets simultaneously through one of two parallel lanes. The AI will remain with the same two students throughout the entire test at this station.

X X

APPENDIX 4: Grading Instructions/Sheet

I. General. Station Eight is worth a total of 10 points.

II. Scoring.

A. General: All students must completely negotiate the entire course in 6 minutes. To receive the allotted points, the student must employ proper techniques. No points will be given for "half-right" performance.

B. Covered Position 1: The student must rush for no more than 3 seconds, drop to his knees, slide the right/left hand down to the heel of the stock, and break his fall with the butt of his weapon. Rolling to his right/left side, he must place the butt of the weapon firmly into his shoulder and roll to a good prone posture. The student must then crawl or roll to the covered position. The student may rush a second time in an effort to reach the location; however, before beginning the second rush, he must crawl or roll away from his previous position so that he rises from a location different from that where he went down.

C. Covered Position 2: The student must move to this location in the same manner as for covered position 1. However, he must roll or crawl away from his last position before beginning his rush. Once the student reaches the covered location, he must be in a good prone posture behind that cover.

D. Trench. The student will parallel the trench with his firing side, turn his head away, and probe the bottom of the trench with the weapon. Using the weapon as a crutch, he will roll into the trench. To come out, he will lift the weapon and his firing leg to the top of the trench and roll out.

E. High Crawl. The weapon will be in the crooks of both elbows, the sling wrapped around the balance of the weapon, both hands on the weapon. The student moves on both elbows and pushes with both feet.

F. Low Crawl. The student will hold the weapon by the front swivel and slung over the elbow, turn head down and away, pull with one hand, and push with one leg.

G. Log. The student will parallel log with his firing side, turn his head away, and probe opposite side of log. Then he will lift weapon and firing leg to top of log and roll over the log.

	<u>Yes</u>	<u>No</u>	<u>Weight</u>	<u>Score</u>
1. Covered Position 1			2	_____
2. Covered Position 2			2	_____
3. Trench			2	_____
4. High Crawl			2	_____
5. Low Crawl			1	_____
6. Log			1	_____
Total Weight:			10	_____
Total Score:				_____

COMMENTS

Sequencing the "high crawl" prior to the "low crawl" and the subsequent movement over the log is unfortunate. It necessitates the artificial cueing of the low crawl. Since high crawl, appropriate for night conditions, must be artificially cued, it would better be tested separately or as the last movement in this exercise.

The general nature of the instructions given in the initial briefing compared to the highly specific grading instructions suggests that examinees have been expected to memorize the sequence of movements for the specific test course or a highly similar one. If this is the case, the test is not a test of the examinee's ability to select, as well as perform the proper tactical movements that are required in response to particular terrain characteristics.

It will be noted that Appendix 3 II indicates that each AI observes the performance of two examinees simultaneously. If the AI is truly expected to attend to all the scoring details that have been specified, he can only score one person at a time.

Each aspect of a tactical movement that has been identified as characteristic of a correct response must be scored to insure that the AI actually attends to all behavioral elements, rather than an overall score being given for each part of the test.

Finally, weighted scoring is inappropriate for a Skill Qualification Test.

EXAMPLE 18

TASK: Determine the Eligibility for Overseas Levy.

(Excerpts from Test)

SITUATION: You are a Personnel Management Specialist assigned to the Personnel Services Division, 12th Infantry Division, Camp Jones, Georgia 30312. TODAY is 11 July 1977. You are responsible for processing routine oversea levies.

REQUIREMENT: Using the appropriate regulations, determine if the personnel listed on levy are eligible to comply with DA Assignment Instructions. If eligible, circle the appropriate number on the answer sheet. If ineligible, circle the reason(s) for ineligibility. When you have completed the test, transfer your answers to the punchee card.

	SP5 CASTRO	SFC BARLOW	SP4 GATTON	SP4 WINFS	PV2 GANT	SP4 HALFORD
1. Eligible for assignment.	1	13	25	37	49	61
2. Ineligible for assignment for the following reason(s):						
a. Individual has insufficient service remaining.	2	14	26	38	50	62
b. Individual is restricted by fiscal year limitations.	3	15	27	39	51	63
c. Individual is currently on DA approved compassionate reassignment.	4	16	28	40	52	64
d. Individual is former peace corps member.	5	17	29	41	53	65
e. Individual has been "flagged".	6	18	30	42	54	66
f. Individual is a sole surviving son.	7	19	31	43	55	67
g. Individual was levied in wrong grade.	8	20	32	44	56	68
h. Individual has less than 12 or 36 months.	9	21	33	45	57	69
i. Individual is stabilized.	10	22	34	46	58	70
j. Individual does not meet physical requirement.	11	23	35	47	59	71
k. Individual does not meet MOS requirement.	12	24	36	48	60	72

DATE: 770701

SAIL DISTRIBUTION CODES NH

CAP III ASSIGNMENT POSTERS
CYCLE NO 02

NAME	SEX	M P C	SSAN	REQUISITION CR NOS SC	ARR MON	GAINING UNIT UIC NO BR	REGISTRATION	STATION CITY DOT	STA PFA APO	OPD LTRP CITY NO	ARR MON	L ACTION	A RTH
WILKES, HOGAN D.	M	E	253-36-2987	4 94B20 X	11	07AA W07A 12 5th Flt Co	20		00773 A	HIX 0709	11	1	T C
JANT, IMANE I.	M	E	975-34-3579	3 75C20	11	DESA 0199 AG CO 5TH Flt SV	04		04200 3	FWY 0118	11	1	P C
HALFORD, FRED P.	M	E	303-43-5501	4 35D20 X	11	2HSA W2HR USA WLY CP COI 1st Flt	01		09009 3	WFL 0061	11	1	P C
CASTRO, EDOLPH K.	M	E	316-54-4821	4 53E20 X	11	0A1A W01Y 12 Maint Op	07		96283 3	QHB 0005	11	1	R O
BARLOW, RALPH J.	M	E	232-33-3364	6 64240 X	11	092A W093 527 Emer Op	10		09227 1	CTH 0239	11	1	R O
GATTON, DAVID L.	M	E	975-34-3579	4 97B20	11	005A W005 32 AMBICO	10		09353 1	DCB 1101	11	1	R O

PERSONNEL QUALIFICATION RECORD - PART 1

NAME		SECTION I - IDENTIFICATION			TITLE		NUMBER		REPORT DATE		
CASTRO RUDOLPH KERN II		316-54-4821			V E		770701		RECONCILIATION		
SECTION II - CLASSIFICATION AND ASSIGNMENT DATA		REG R 3 YR		771021		63H20		63C20		63C20	
SECTION III - SERVICE TRING & OTHER DATES		741022		741022							
SECTION IV - PERSONAL AND FAMILY DATA		HS GRAD		E		KOREA		7 FT LEWIS		WL	
SECTION V - MISCELLANEOUS											
SECTION VI - AUTHORIZED POSITION DATA		M		LAT-DAY-ST							
SECTION VII - CURRENT AND TWO PREVIOUS ASSIGNMENTS		CO C 12 MAINT BN 12 INF DIV		770701		751112		750520			
SECTION VIII - LOCAL DATA		CO B 4 MAINT BN 4 INF DIV		751112		CO C 9 MAINT BN 9 INF DIV		750520			

RECORD COPY - 1

REPLACES DA FORMS 780 AND 787, DEC 71, WHICH ARE OBSOLETE.

DA FORM 8, 1 JAN 78 & PART 1

FEDERAL QUALIFICATION RECORD-CAT 1

1. NAME HALFORD FRED PETER	2. SOCIAL SECURITY NO 503-43-5501	3. VESSEN V	4. MPC E	5. DATE PREPARED 770701	6. TYPE OF RECORD RECONCILIATION	7. VOUCHER NO	8. REPORT DATE 31J20
<p align="center">SECTION I - IDENTIFICATION</p>							
<p align="center">SECTION II - CLASSIFICATION AND ASSIGNMENT DATA</p>							
9. GRADE SP4 M	10. DATE OF BIRTH 761103	11. BARRACK CONTROL NO REG R	12. YEAR 3 YR	13. SERVICEMAN'S PAY NO 3 780203	14. DELAY IN SEPARATION 35D20	15. PRIORITY 3	16. SECURITY CLEARANCE G
17. GRADE SP4 M	18. DATE OF BIRTH 761103	19. BARRACK CONTROL NO REG R	20. YEAR 3 YR	21. SERVICEMAN'S PAY NO 3 780203	22. DELAY IN SEPARATION 35D20	23. PRIORITY 3	24. SECURITY CLEARANCE G
<p align="center">SECTION III - SERVICE TRNG & OTHER DATES</p>							
25. INCENTIVE PAY NO 1 35D20	26. INCENTIVE PAY NO 2	27. INCENTIVE PAY NO 3	28. INCENTIVE PAY NO 4	29. INCENTIVE PAY NO 5	30. INCENTIVE PAY NO 6	31. INCENTIVE PAY NO 7	32. INCENTIVE PAY NO 8
<p align="center">SECTION IV - PERSONAL AND FAMILY DATA</p>							
33. HS GRAD	34. HS GRAD	35. HS GRAD	36. HS GRAD	37. HS GRAD	38. HS GRAD	39. HS GRAD	40. HS GRAD
<p align="center">SECTION V - MISCELLANEOUS</p>							
41. PULLER	42. PULLER	43. PULLER	44. PULLER	45. PULLER	46. PULLER	47. PULLER	48. PULLER
<p align="center">SECTION VI - AUTHORIZED POSITION DATA</p>							
49. AUTHORIZED POSITION	50. AUTHORIZED POSITION	51. AUTHORIZED POSITION	52. AUTHORIZED POSITION	53. AUTHORIZED POSITION	54. AUTHORIZED POSITION	55. AUTHORIZED POSITION	56. AUTHORIZED POSITION
<p align="center">SECTION VII - CURRENT AND TWO PREVIOUS ASSIGNMENTS</p>							
57. UNIT	58. UNIT	59. UNIT	60. UNIT	61. UNIT	62. UNIT	63. UNIT	64. UNIT
UNIT 1 HHHC 12 AVN BN 12 INF DIV	UNIT 2 CO A STU BN APG MD	UNIT 3 CO D 1ST BCT BN FT JACKSON	UNIT 4	UNIT 5	UNIT 6	UNIT 7	UNIT 8
<p align="center">SECTION VIII - LOCAL DATA</p>							

RECORD COPY - 1

REPLACES DA FORMS MFR AND MFT, DEC 71, WHICH ARE OBSOLETE

DA FORM 2, 1 JAN 78 (14 PART)

PERSONNEL QUALIFICATION RECORD - PART II

SECTION I - IDENTIFICATION DATA				SECTION II - CLASSIFICATION AND ASSIGNMENT DATA (Continued)			
1. NAME		2. SSN		3. MOSC		4. TITLE	
HALFORD, FRED PETER		303-43-5501		35D20		Meteor Equip Rpmn	
SECTION II - CLASSIFICATION AND ASSIGNMENT DATA				5. MILITARY OCCUPATIONAL SPECIALTIES			
3. MOS EVALUATION SCORES		4. YR & MO		5. YR & MO		6. DATE	
MOSC	SCORE	YR & MO	SCORE	YR & MO	SCORE	760321	760826
4. ASSIGNMENT CONSIDERATIONS				7. AVIATION ASI & GUNNERY QUALIFICATION			
NO ASG TO COLD CLIMATE, UP AR 674-30 CHAP 8 PARA 8-1K(L)				8. INSTR PILOT		9. INSTR SYSTEM	
				F/W	P/W	TNG	INSTR
							IN 95
				10. AWARDS, DECORATIONS & CAMPAIGNS		11. CAPTITUDE AREA SCORES	
							AE 102
							EL 113
							GM 107
							MM 102
							CL 106
							GT 112
5. OVERSEA SERVICE				10. OTHER TESTS			
FROM	THRU	AREA AND COUNTRY	MO	TYPE	NTC	ARR DS	DATE
							751010
							PLACE FLW NO
							TEST SCORE DATE
							MOB. 1 109 751011
							OCT 119 751011
							DLAT 13 751011
							OOI-1
							FAST-
							OR
							WOCB
11. AMERICAN BOARD CERTIFICATION & LICENSES OR CERTIFICATES HELD							
12. LANGUAGE PROFICIENCY							
DA FORM 336 SUBMITTED DATE							

SECTION II - CLASSIFICATION AND ASSIGNMENT DATA (Continued)				SECTION III - SERVICE, TRAINING AND OTHER DATES					
ORIGINAL	DATE	CURRENT	DATE	GRADE	COMP	EFFECTIVE DATE	DATE OF ELIG/HANK	SUBJECT	DATE
				PV1		750204	ATP 21-114 (BCT)	Geneva-Hague Conventions	751213
				PV2		750604			
				SP4		761103		Military Justice Benefits of Honorable Discharge	
INSTRUMENT CERTIFICATION									
INTERNSHIPS RESIDENCIES AND FELLOWSHIPS									
HOSPITAL									
TYPE OR SERVICE									
MONTHS									
YEAR									
CONT									
16 HOSPITAL TEACHING APPOINTMENTS AND PRIVATE PRACTICE				19 BASIC ENLISTED SERVICE					
FROM	THRU	INSTITUTION LOCATION	TYPE	DATE (BEST)	DATE	THRU	DATE (Sec 972, Title 10, USC)	REASON	CONT
17. CIVILIAN EDUCATION AND MILITARY SCHOOLS				SECTION IV - PERSONAL AND FAMILY DATA					
SCHOOL	MAJOR COURSE / MOSC	DURAT	COMP	YEAR	22. PHYSICAL STATUS	23. PLACE OF BIRTH AND CITIZENSHIP			
East HS	General	4 Yr	Yes	73	HEIGHT	71	WEIGHT	174	PLACES
USAES	35D20	11 Wk	Yes	76	DATE OF BIRTH	MISSOURI			
				24. NUMBER OF DEPENDENTS: 25. HOME OF RECORD ADDRESS					
				26. CIVILIAN OCCUPATION					
				JOB TITLE: None					
				DOT CODE: <input type="checkbox"/> 483 <input type="checkbox"/> NO					
				DUTIES PERFORMED					
				EMPLOYER					
				St Louis MO					

INSTRUCTIONS IN THE USE OF PUNCHED CARDS

The situations in this test require you to record your answers on a punchee card. To receive credit for your answer, it must be recorded on the punchee card as follows:

- a. Check the punchee cards provided to insure that the number punched on the left agrees with your student number.
- b. Be sure that the punchee card you are using corresponds to the test situation.
- c. Circle your answers on the punchee card. Be sure that the number circled on the punchee card agrees with the number on the answer sheet. If you made an error or decide to change an answer, DO NOT ERASE. Cross out your first answer and circle your new choice.
- d. Punch out the answer responses which you circled. If you made a mistake while punching, request another card from the test proctor.
- e. Check the reverse side of the card to insure that all punched chips are removed. Failure to remove a punched chip may result in erroneous machine scoring of your answer card.

COMMENTS

The display of reasons for ineligibility (20 a through h) is probably a serious departure from "real" task performance. Each reason represents a distillation of information from regulations. Providing such information cues the performer to look up specific information rather than requiring him to identify the information that needs to be considered. A more appropriate simulation might require the examinee to identify sections in the ARs which apply in each of the cases.

Requiring the examinee to punch his answers on cards introduces a greater possibility of random error, (i.e., unreliability) and introduces a performance requirement that is not part of the real task.


EXAMPLE 19

TASK: Locate Errors in Classified Processing
(Excerpts from Test)

C L A S S I F I E D P R O C E S S I N G

1. SITUATION. You are at your desk and your classified documents control clerk places the material displayed in this booklet on your desk. Some of the documents and their related materials represent incoming transactions and others represent outgoing transactions.
2. REQUIREMENT. Examine each classified document transaction to include documents, receipts, and envelopes, and identify any errors in these transactions in the answer form provided. Circle the number on the answer form for those items that are incorrect. This test situation uses only one answer card.
3. CAUTION! MAKE YOUR DECISIONS BASED ONLY ON THE MATERIAL DISPLAYED IN THIS TEST BOOKLET. DO NOT MAKE ASSUMPTIONS WHICH ARE NOT SUBSTANTIATED BY THE MATERIAL DISPLAYED.

CLASSIFIED DOCUMENT ACCOUNTABILITY RECORD					DATE	
For use of this form, see AR 380.5, the proponent agency is the Office, Assistant Chief of Staff for Intelligence					4 Feb 1976	
SECTION A - GENERAL						
TO Commander 12th Infantry Division ATTN: AJJGC Camp Jones, GA 30312			FROM Commander Third, US Army ATTN: AJAGT Fort McPherson, GA 30330			
DATE RECEIVED		ACTION OFFICE(S)		SUSPENSE DATE(S)		REGISTER OR CONTROL NO
CONTROL LOG OR FILE NO	CLASSIFICATION	NUMBER OF COPIES	DESCRIPTION (Type, File Ref, Unclassified Subject or Short Title and Number of Indorsements/Incls)	DATE OF DOCUMENT	ORIGINATOR	
3A20276	S	1	Ltr, AJAGT, HQ, Third US Army Subject: Schedule of Training (U), dated 4 February 1976, copy 2 of 14. S	4 Feb 76	Third Army	
"FOR INSTRUCTIONAL PURPOSES ONLY"						


<p>DEPARTMENT OF THE ARMY Commander, Third US Army Fort McPherson, GA 30330</p> <p>OFFICIAL BUSINESS PENALTY FOR PRIVATE USE, \$300 AJAGT</p>	<p>AN EQUAL OPPORTUNITY EMPLOYER</p> <p>POSTAGE AND FEES PAID DEPARTMENT OF THE ARMY DoD-814</p>  <p>Commander 12th Infantry Division ATTN: AJJGC Camp Jones, GA 30312</p>
---	---

<p>Commander Third US Army Fort McPherson, GA 30330</p> <p>AJAGT</p>	<p>Commander 12th Infantry Division ATTN: AJJGC Camp Jones, GA 30312</p> <p>CONFIDENTIAL For Training - Otherwise Unclassified</p>
--	---

USE WITH DOCUMENT 1

CLASSIFIED DOCUMENT ACCOUNTABILITY RECORD					DATE	
For use of this form, see AR 380.5, the proponent agency is the Office, Assistant Chief of Staff for Intelligence					24 December 1975	
SECTION A GENERAL						
TO Commander 12th Infantry Division ATTN: AJJGD Camp Jones, GA 30312			FROM Commander Third United States Army ATTN: AJAGL Ft McPherson, GA 30330			
DATE RECEIVED		ACTION OFFICE(S)		SUSPENSE DATE(S)		REGISTER OR CONTROL NO
CONTROL LOG OR FILE NO	CLASSIFICATION	NUMBER OF COPIES	DESCRIPTION (Type, File Ref., Unclassified Subject or Short Title and Number of Indorsements/Incls)	DATE OF DOCUMENT	ORIGINATOR	
JA151575	TS	2	Ltr, AJAGL, Third US Army, Subject: Atomic Demolition Munitions (U), copies 3 and 4 of 12, SECRET	24Dec75	Third Army	

"FOR INSTRUCTIONAL PURPOSES ONLY"

DEPARTMENT OF THE ARMY		AN EQUAL OPPORTUNITY EMPLOYER		POSTAGE AND FEE PAID DEPARTMENT OF THE ARMY DD-D-814 
Commander, Third US Army Fort McPherson, GA 30330				
OFFICIAL BUSINESS PENALTY FOR PRIVATE USE, \$300 AJAGL				
<div style="border: 2px solid black; padding: 5px; display: inline-block;"> REGISTERED No. 58932524 </div>		Commander 12th Infantry Division ATTN: AJJGD Camp Jones, GA 30312		

Commander, Third US Army Fort McPherson, GA 30330 AJAGL	Commander 12th Infantry Division ATTN: AJJGD Camp Jones, GA 30312
SECRET FOR TRAINING OTHERWISE UNCLASSIFIED	

USE WITH DOCUMENT 5



TOP SECRET
For Training - Otherwise Unclassified
DEPARTMENT OF THE ARMY
HEADQUARTERS, THIRD UNITED STATES ARMY
FORT MCPHERSON, GEORGIA 30330

AJAGL

24 December 1975

SUBJECT: Atomic Demolition Munitions (U)

Commander
12th Infantry Division
ATTN: AJJGD
Camp Jones, GA 30312

1. (C) Xk xk xk xk xk xk xk xk xk xk xk xk xk xk xk xk xk
xk xk xk xk xk xk xk xk xk xk xk xk xk xk xk xk xk
2. (S-RD) Xk xk xk xk xk xk xk xk xk xk xk xk xk xk xk xk xk
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xk xk xk xk xk xk xk xk xk xk xk xk xk xk xk xk xk
3. (TS) Xk xk xk xk xk xk xk xk xk xk xk xk xk xk xk xk xk
xk xk xk xk xk xk xk xk xk xk xk xk xk xk xk xk xk
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xk xk xk xk xk xk xk xk xk xk xk xk xk xk xk xk xk

FOR THE COMMANDER:

W. T. Door
W. T. DOOR
MAJ, AGC
Asst AG

CLASSIFIED BY COA, Third Army

Copy 3 of 12 Copies

TOP SECRET
For Training - Otherwise Unclassified

W. T. DOOR
MAJ, AGC
Asst AG

CLASSIFIED BY CDR, Third Army

TOP SECRET
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DOCUMENT 5

CLASSIFIED PROCESSING

INSTRUCTIONS:

Indicate the errors that you find by placing a circle around the number corresponding to the error in the answer key for the various documents and their accompanying material. Only evaluate the material that is presented in the Classified Processing section of this booklet and make no assumptions.

- I. Overall Defense Classification on:
 - a. Document
 - b. Envelope
- II. Parenthetical Defense Classification
- III. Downgrading or Declassification Markings
- IV. Restricted Data Markings:
 - a. Document
 - b. Envelope
- V. If the required envelope(s) are not present indicate
- VI. If the required receipt(s) are not present indicate.
- VII. Addresses on:
 - a. Envelope(s)
 - b. Receipt(s)
- VIII. If the content of the receipt does not agree with the document(s) indicate
- IX. Means of transmittal for classification of documents

		DOCUMENTS				
		1	2	3	4	5
1	(1)		(13)	25	(37)	49
2	(2)		(14)	(26)	38	(50)
3	(3)		15	27	39	51
4	4		16	(28)	(40)	52
5	5		17	29	41	(53)
6	6		18	30	42	(54)
7	7		19	31	43	55
8	8		20	32	44	56
9	9		21	33	45	57
10	10		22	34	46	58
11	11		(23)	35	47	(59)
12	(12)		24	36	(48)	(60)

COMMENTS

Providing the location of errors and the types of errors on the answer sheet cues the performance. The format of the scoresheet creates a test analogous to a multiple choice situation. Unless persons in this job use such a checklist as a job aid, the answer sheet invalidates the test since prior to detecting errors the performer must ascertain what errors to look for.

COMMENTS

This test gets at knowledge of safety precautions, but in no way gets at evidence of what a person will actually do on the job. The practice of safety precautions cannot be tested by informing the performers of the nature of the test. Observation of safety precautions can only be tested in the context of the performance of a real task. Following safety procedures is not a task, but a general characteristic of behavior.

EXAMPLE 21

TASK: Edit Request Documents for TOE End Items.
(Open book examination.)

(Excerpts from a test which has been completed.)

SITUATION:

1. You are a Stock Control Clerk assigned to the 71st Supply and Maintenance Company, 71st Support Battalion. You have edited request documents for completeness. Now you must edit request documents for Accuracy/Authorization. The Units/Organizations you are supporting are:

<u>UNIT</u>	<u>UIC</u>	<u>TOE</u>
2nd Bn 11th Inf (TOW)	A2ZAA	7-175H (TOW)
71st Spt Bn.	ATGAA	29-245H
169th Tire Company	A4BAA	9-117G
57th Light Truck Company (2½ TON)	A5CGO	55-17G (2½ TON)

2. The following status codes will be entered in block 22 of the DA Form 2765-1 to indicate rejection status.

<u>CODE</u>	<u>SAYS</u>
CA	REJECTED: Reason appears on reverse side of form.

NOTE: Status code "CA" will be used for the following:

- When request cannot be identified (unit not known).
- When request is from a unit not supported.
- When request cannot be corrected.
- When item requested is not authorized.

CG	REJECTED: Unable to identify item.
CQ	REJECTED: Incorrect citation of TOE.
CS	REJECTED: Quantity exceeds authorized allowance.

REQUIREMENT #1:

Perform an Accuracy Edit for validation of NSN, U/I, and Nomenclature on DA Forms 2765-1 (Figures 1 through 4) using AMDF.

Fill in/correct the blocks in which entries are incomplete/incorrect or missing.

Make corrections by lining out the incorrect entry and placing the correct entry above (i.e., ^{EA}).

REQUIREMENT #2:

Perform an Accuracy Edit for validation of NSN, U/I, and Nomenclature on DA Forms 2765-1 (Figures 5 through 9) using SB 700-20.

Fill in/correct the blocks in which entries are incomplete/incorrect or missing.

Enter the LIN in Block "O" of the document.

Make corrections by lining out the incorrect entry and placing the correct entry above (i.e., ^{EA}).

REQUIREMENT #3:

a. Determine the required information for the below listed TOE references using DA Pam 310-3. Abbreviate the titles.

<u>TOE</u>	<u>DATE</u>	<u>CHANGES</u>	<u>TITLE</u>
6-604H	13 AUG 71	NONE	HQ + HQ BATT Field Arty
9-550G	19 AUG 70	1	ORD Rocket + Miss sup teams
29-107H	30 NOV 70	1	SUP + SERV. Comp sup

b. Validate the publication data on DA Forms 2765-1 (Figures 1 through 9) using DA Pam 310-3. Validate/correct publication data by lining out the incorrect entry and placing the correct entry above (i.e., 26 May ⁷¹).

REQUIREMENT #4:

Perform an Authorization Edit on DA Forms 2765-1 (Figures 1 through 9) using the appropriate TOE and ESR (QMS 50.151H1).

NOTE: All units/organizations are operating at Equipment Level 1 in the TOE.

Fill in/correct the blocks in which entries are incomplete/incorrect or missing. Make corrections by lining out the incorrect entry and placing the correct entry above, (i.e., ~~3~~).

NOTE: You have the authority to reject quantities in excess of TOE allowances by changing requested quantity.

REQUIREMENT #5:

Indicate disposition of documents in Figures 1 through 9 by checking (✓) the appropriate block for Accuracy/Authorization Edit.

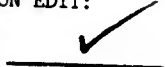
Enter appropriate status code from situation (par 2) in Block 22 for documents which you reject.

71st S&M Co		2nd Bn 11th Inf	
3181-0001		2.3.20 0.0.0.7.7.1.6 1.6	
SAMPLE		EA	
UNIT IDENT CODE A 2 Z A A		ITEM DESCRIPTION Truck Cargo 21 Ton Cap M5A2	
A 1 0 2		TOE 7-175H, <u>Nov 70</u> , Pg 15	

Figure 1

ACCURACY-AUTHORIZATION EDIT:

Accept



Reject

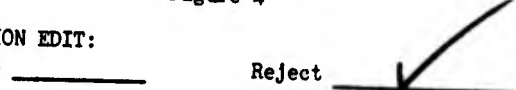
XX

71st S&M Co		57th Lgt Trk Co	
3181-0001		6.1.3.0 0.0.9.8.5.7.8 9.9	
SAMPLE		E A	
UNIT IDENT CODE A 5 C G O		ITEM DESCRIPTION Power Supply PP-2953/U	
A 1 0 6		TOE 55-128G, 6 Oct 67, Pg 4	

Figure 4

ACCURACY-AUTHORIZATION EDIT:

Accept



Reject

XX

COMMENTS

This appears to be an excellent simulation. The fact that the examinee is given figures to use rather than a stack of actual cards to edit, is a trivial shift from a Full Performance Test to a Partial Performance Test. Making the test "open book" is realistic, since task performers in the real job would have access to references. The only real change suggested here (to make this test suitable for Skill Qualification Testing) is to delete information which states the specific references to use from Requirements 1 through 4. The real task performer would probably make such identifications himself. Also, it would be necessary to consider whether the examinee should be told to edit for ". . . NSN, U/1 . ." etc., or whether in the real task he would be given the general instruction to "Perform an Accuracy Edit".

EXAMPLE 22

TASK: Design a Quarry Blast

(Excerpt from Test)

X X

TEST SITUATION:

"You are a powderman and are required to design a quarry blast. From the data available, calculate the blast dimensions, select the best blast pattern, and calculate the amount of explosive required for the blast."

PERFORMANCE MEASURE 1:

The student demonstrates to the tester the calculation of the blast dimensions.

PERFORMANCE MEASURE 2:

The student demonstrates to the tester the selection of the best blast pattern.

PERFORMANCE MEASURE 3:

The student demonstrates to the tester the calculation of the amount of explosives required for the blast.

X X

COMMENTS

The test situation overcues the performer. Typically a powderman would be told to design a quarry blast rather than be instructed to "calculate the blast dimensions, select the best . . . ". Virtually no description of the behaviors to be scored are given. No score sheet has been provided. This would be a totally inadequate test to be included in a Skill Qualification Test.

COMMENTS

In a real task, the form to be completed would not have been pre-marked with asterisks. A major aspect of requisitioning items is in knowing what blocks should be completed.

The examinee could not actually complete this test, as written, since the requirement sheet he receives does not state the vehicle (M113A1) that needs the new part.

1. DIRECTIONS

- a. This station tests your ability to check and adjust the generator drive belts on the M113A1 armored personnel carrier.
- b. You have 4 minutes to complete this requirement.
- c. The instructor at this station will observe and evaluate your performance.

2. SITUATION

You are performing a quarterly maintenance service on an M113A1 APC.

3. REQUIREMENT

Check and adjust the generator drive belts.

DIRECTIONS

Observe the student for proper performance and evaluate him by checking the appropriate column below for each step. Steps not performed within the 4 minutes allotted time will be checked as incorrect. Each step performed correctly will be valued as indicated.

STUDENT

Did the student:

- 1. Use the TM?
Note. When the student picks up the TM, give him page 2-184 as his reference.
- 2. Check tension before adjustment?
- 3. Properly adjust belt?

Correct	Incorrect	Wt
		1
		1
		3

COMMENTS

It is not appropriate to score for the use of the TM, for it penalizes an examinee who can perform successfully without it.

See additional comments on providing page numbers in manuals, in Example 4.

The standard for a properly adjusted belt should be specified, since it appears that product is being scored, rather than process.

EXAMPLE 25

TASK: Adjust Trim Vane Control Linkage.

(Excerpts from Test)

1. PURPOSE

This station tests the student's ability to adjust the trim vane control linkage on the M113A1 armored personnel carrier.

X X

3.

a. This station will be organized to accommodate 2 students simultaneously under the evaluation of 1 instructor.

X X

e. On each vehicle:

(1) Prior to the arrival of the class, ensure that:

(a) The trim control is out of adjustment.

(b) The following are available:

1. 12-inch adjustable wrench.

2. 15/16-inch combination open and box wrench.

3. TM 9-2300-257-20.

X X

(2) Prior to the arrival of each student, ensure that:

(a) The trim vane control is out of adjustment. (This will be accomplished by the previous student after he has adjusted it correctly.)

(b) Necessary tools, equipment, and instructional aids will be repositioned as required.

X X

c. Evaluate student as he performs by checking the appropriate column for each procedure step listed on the station evaluation checklist.

Note. When the student picks up the TM, inform him that the information he needs for this test is on page 2-290.

X X

1. DIRECTIONS

- a. This station tests your ability to adjust the trim vane control handle on the M113A1 armored personnel carrier.
- b. You have 4 minutes to complete this requirement.
- c. The instructor at this station will observe and evaluate your performance.

2. SITUATION

During the performance of a quarterly service you discovered the trim vane control handle was out of adjustment.

3. REQUIREMENT

Adjust the trim vane control linkage.

DIRECTIONS

Observe the students for proper performance and evaluate them by checking the appropriate column below for each step. Steps not performed within the 4 minutes allotted time will be checked as incorrect. Each step performed correctly will be valued as indicated.

STUDENT 1

STUDENT 2

Did the student:

1. Use the TM?

Note. When the student picks up the TM, give him page 2-290 as his reference.

2. Correctly adjust the linkage?

Correct	Incorrect	Wt	Correct	Incorrect
		1		
		3		

COMMENTS

See comments on providing page numbers in the manual, in Example 4, and on scoring for use of TM in Example 5.

The Test Administrator is instructed to ". . . check the appropriate column for each procedure step . . .". However, none are listed on the score sheet.

Under item 3. e. (2) (a) it is indicated that each successive examinee (student) places the trim control out of adjustment to prepare the station for the next examinee. To maintain standardization, this activity should be carried out by the Test Administrator.

EXAMPLE 26

TASK: Hand Grenade Carrying, Arming, and Throwing.

(Excerpts from Test)

X X

The purpose of this test is to see how much you know about carrying, arming, and throwing the hand grenade. You must get at least 10 out of 13 correct to pass this test. If you answer less than 10 correctly, or if you miss any of the test items identified by an asterisk (*), you should take this lesson. Read each question carefully.



*Study the picture. Mark YES or NO to show whether it is the correct method of holding a hand grenade.

1. YES NO
 — —

X X

8. How do you arm the M25 Riot-Control hand grenade? (Ball-shaped, bursting type)

9. Name one advantage and one disadvantage of the standing position when throwing a hand grenade.

Advantage: _____

Disadvantage: _____

10. When throwing a hand grenade from behind a three feet high wall, what would be your best throwing position?

11. You are in a situation where you need to throw the hand grenade a medium distance, but you don't have the necessary cover for the kneeling position, which throwing position should you use?

12. When would you select the prone position for throwing a hand grenade?

13. List the three steps for arming a fragmentation hand grenade.

A. _____

B. _____

C. _____

This is the Answer Key to the Pre Test for Lesson #942-071-0003-F, The Hand Grenade - Carrying, Arming, and Throwing. The test covers every objective contained in this lesson. The purpose of this test is to see how much the soldier already knows about carrying, arming, and throwing the hand grenade. Each soldier must get at least 10 out of 13 total test items to pass this test. If he gets less than 10 test items correct or if he misses any item identified by an asterisk (*), he should take this lesson.

- *1. No. Safety lever away from thumb.
- *2. Yes.
- *3. No. Can't get at pull ring.
- *4. Yes.
- *5. No. Clip has not been removed.
- *6. Yes.
- *7. No. Pin has not been removed.
- 8. Depress arming sleeve, pull pin, throw.
- 9. Good range, but requires good frontal cover.
- 10. Kneeling position.
- 11. Prone to kneeling position.
- 12. When range is short and you have little or no cover.
- 13. A. Remove safety clip.
B. Pull pin.
C. Throw.

COMMENTS

This test is recognized by its developers as a knowledge test. Indeed, it appears to be a good knowledge test, for it does not give the examinee too much information (as is frequently the case when an attempt is made to convert task performance into a multiple choice test of task knowledge). The questions themselves are simple, and the answers (even for the open-ended questions) are also simple and presumably can be quite objectively scored.

This test would not be adequate as a performance measure, however, since none of the physical demands of carrying, arming, and throwing a hand grenade are included. In particular, the examinee does not have to demonstrate throwing a grenade to a target area or making proper use of cover subsequent to throwing the grenade.

EXAMPLE 27

TASK: Select Route, Machine Gun Positions, and Final Coordination Line for a Rifle Platoon in the Attack.

(Excerpts from Test)

X X

III. Situation. You are the platoon leader. The company commander has given you the mission of planning an attack to seize an objective. The company commander has issued a fragmentary order stating that a reinforced enemy squad is known to be located in well-prepared positions on the high ground to your front. Your mission is to seize Objective Z. Your map reconnaissance indicates that the entire area is lightly wooded with slightly rolling terrain.

IV. Requirement. Based on the fragmentary order and a detailed sketch map reconnaissance, make the following selections:

- A. Route to the objective.
- B. Machinegun employment.
- C. Final coordination line.

X X

IV. Test Modification.

A. Appendixes 3 through 6 illustrate the problem requirements. Since this problem is to be modified to tie it to local terrain, the solutions shown in paragraph VI below must also be modified. However, the basic concept of the test will not be changed.

B. The student must be able to look at the sketch map, compare it to the actual terrain, and make the following determination concerning the forthcoming attack:

- 1. Best route to the objective.
- 2. Best method of employing the platoon's two machineguns.
- 3. Best location for the FinalCL.

C. Point scoring, as indicated in paragraph V below and in Appendix 5, will not be changed.

APPENDIX 4: Student Answer Sheet

CIRCLE ONE FOR EACH REQUIREMENT

REQUIREMENT 1: ROUTE TO THE OBJECTIVE--

- A. Route E.
- B. Route F.
- C. Route G.

REQUIREMENT 2: MACHINEGUN EMPLOYMENT--

- A. One machinegun in position 1 and one machinegun in position 2.
- B. Both machineguns in position 2.
- C. One machinegun in position 2, and one with the maneuver element.

REQUIREMENT 3: FINALCL--

- A. FinalCL A.
- B. FinalCL B.
- C. FinalCL C.
- D. FinalCL D.

NOTE: With exception of Requirement 3, no credit should be given for incorrect choices.

APPENDIX 5: Grading Instructions/Sheet

	<u>Yes</u>	<u>No</u>	<u>Weight</u>	<u>Score</u>
1. Selected correct route:			12	_____
2. Selected correct machinegun employment:			9	_____
3. Selected correct FinalCL-- 4 points:				
4. Selected alternate choice-- 2 points:			4	_____
	Total Weight:		25	_____
	Total Score:			_____

COMMENTS

Both the suggestion that the test be modified to fit local terrain (see section IV. A.) and the scoring procedures (using weights) make this test unsuitable for Skill Qualification Testing. If the test is modified to suit different terrains at different locations, standardization is lost. Probably only by using the same map and basing decisions upon that map alone can standardization be maintained.

For Skill Qualification Testing, a mere check of each aspect of correct performance for items 1 through 3 is appropriate. Awarding partial credit for the alternate choice - Final CL B (item 4) - is an improper attempt to give credit to a person who has chosen an incorrect route and, therefore, can no longer select the correct Final CL.

The presentation of routes and CL options on the map turns the problem into a multiple choice exercise and probably is a significant departure from a realistic situation.

EXAMPLE 28

TASK: Marching a Squad.

(Entire Test)

Instructions to Students:

You are the squad leader.

Form the squad (initial formation of the day). March the squad to the right for a short distance using a line formation. Stop the squad. March the squad forward using a column formation. Have every man in the squad simultaneously change the direction of march 90° to the right. Halt the squad. Dismiss the squad.

Scoring Instructions:

A. Reporting

1. Position of Attention
 - a. Feet and Heels Correct 2
 - b. Hands and Fingers Correct 2
 - c. Posture 2
2. Hand Salute
 - a. Wrist and Hands Straight 2
 - b. Fingers and Thumb Joined 2
 - c. Forefinger touch edge of visor 1
 - d. Hand Salute held until Salute returned 1

B. Forming the Squad

	<u>Proper Command</u>	<u>Command Voice</u>
--	-----------------------	----------------------

- | | | |
|------------------------------|---|---|
| 1. Fall In | 3 | 1 |
| 2. Inspection Arms | 3 | 1 |
| 3. Ready, Port, Arms | 3 | 1 |
| 4. Order Arms/
Sling Arms | 3 | 1 |

C. Commands to be Given

1. From the Halt:
 - a. Right Step March 3 1
 - b. Squad Halt 3 1
 - c. Right Face 3 1
 - d. Right Shoulder Arms 3 1
 - e. Forward March 3 1
2. While Marching:
 - a. Right Flank March 3 1
 - b. Squad Halt 3 1
 - c. Order Arms 3 1
 - d. About Face 3 1

D. Dismissing the Squad

- | | | |
|----------------------|---|---|
| 1. Inspection Arms | 3 | 1 |
| 2. Ready, Port, Arms | 3 | 1 |
| 3. Dismissed | 3 | 1 |

E. Responsibility of Leader

- | | |
|---|---|
| 1. On the Spot Corrections | 6 |
| 2. Maintain Cadence | 3 |
| 3. Face in Marching | 6 |
| 4. Remain Centered and Correct Distance | 4 |
| 5. Commands Given on Proper Foot | 5 |

F. Remarks

GRADER: _____

Overall TOTAL: _____

COMMENTS

We shall comment only upon two flaws in this test. This test requires the cooperation of a group of soldiers who are supposed to be a squad. Unless they are specifically trained to incorrectly perform certain acts, "On the Spot Corrections" (E. 1.) should not be scored. If the performers make spontaneous errors at their own discretion, there is no way to insure that different examinees are actually taking the same test.

The standards to be applied in the scoring of "Command Voice" are completely unspecified.

EXAMPLE 29

TASK: Butt Welding Low Carbon Steel (Oxygen Acetylene).

(Excerpts from Test)

1. The performance test you are about to take consists of butt welds on low carbon steel in the flat, vertical, horizontal, and overhead positions.
2. The following materials will be drawn from the instructor:
 - a. Five 1/8-in x 1-in x 6-in low carbon steel coupons
 - b. Two 1/8-in low carbon steel welding rods
3. During the performance test you will be scored on:
 - a. Procedure (worth 13% of the test grade). You must:
 - (1) Use proper safety clothing, equipment and procedures
 - (2) Use correct procedures to set up oxyacetylene welding equipment
 - (3) Maintain correct joint separation
 - (4) Tack weld work unit in correct sequence
 - (5) Weld specimen in correct position
 - (6) Use correct procedure to shut down welding equipment
 - (7) Weld complete work unit within allotted 2 hours
 - b. Product (worth 87% of the test grade). You must have:
 - (1) Penetration - 80% of the weld must be completely through the back of the plates with no more than 1/32-inch depth at any point.
 - (2) Fusion - The filler metal must be fused with the bottom edge or surface of both plates along 80% of the joint.
 - (3) Undercut - 50% length of the weld will be free from undercut
 - (4) Burned metal - 90% of the weld area will show no burned metal
 - (5) Bead contour - Crown must be higher than work surface along 80% of the length of the joint
 - (6) Bead width - The face of the weld from toe to toe will be no more than 3/8 inch wide along 80% of the length of the joint
 - (7) Weld crater - 50% depth of the bead must be filled in

X X

[i.e. Process]

NOTE: Procedure evaluation: A check mark must be placed in the appropriate column opposite the task to indicate whether the student has or has not performed the required task. Place a check mark in the appropriate column for correct performance, or a X mark in the column for incorrect performance of the task.

	INSTRUCTOR	
	STUDENT → S	I
1. Wearing proper safety clothing	—	—
2. Wearing ear plugs	—	—
3. Uses correct procedures to set up work unit	—	—
4. Uses correct procedures to set up oxyacetylene equipment	—	—
5. Makes correct settings of oxygen and acetylene	—	—
6. Maintains correct joint separation	—	—
7. Tack welds work unit in correct sequence	—	—
8. Welds in correct position	—	—
9. Uses pliers to quench workpiece	—	—
10. Cools workpiece (quenched) before being evaluated	—	—
11. Uses correct procedure to shut down welding equipment	—	—
12. Welds complete work unit within allotted 2 hours	—	—
13. Replaces torch and hoses to proper location when welding is completed	—	—

NOTE. - Product evaluations: Place a check mark in the appropriate column to indicate the student's correct evaluation.

	STUDENT GRADER	STUDENT GRADER						Score	
		80%	75%	70%	60%	50%	Less		
14. <u>Penetration</u> Standard: 80% of the length of weld must show penetration completely through the back of the plates with no more than 1/32inch depth at any point.	F	S							
	G	S							
	H	S							
	G	S							
	V	S							
	G	S							
	O	S							
	G	S							
			80%	75%	70%	60%	50%	Less	Score
15. <u>Fusion</u> Standard: Filler metal must be fused with the bottom edge or surface of both plates along 80% of the joint.	F	S							
	G	S							
	H	S							
	G	S							
	V	S							
	G	S							
	O	S							
	G	S							
			80%	75%	70%	60%	50%	Less	Score

16. Undercut

Standard: 50% length of weld will be free from undercut

		50%	40%	35%	30%	More	Score
F	S						
	G						
H	S						
	G						
V	S						
	G						
O	S						
	G						

17. Burned metal

Standard: 90% of the weld area will show no burned metal

		80%	70%	60%	50%	More	Score
F	S						
	G						
H	S						
	G						
V	S						
	G						
O	S						
	G						

18. Bead contour

Standard: Crown must be higher than work surface along 80% length of weld. Maximum height 1/8-inch.

		80%	75%	70%	65%	60%	Less	Score
F	S							
	G							
H	S							
	G							
V	S							
	G							
O	S							
	G							

19. Bead Width

Standard: Maximum - the face of the weld from toe to toe will be no more than 3/8-inch wide along 80% of the length of the joint

F	S							
	G							
H	S							
	G							
V	S							
	G							
O	S							
	G							

20. Weld crater

Standard: 50% depth of the bead must be filled in

		50%	45%	40%	35%	30%	Less	Score
F	S							
	G							
H	S							
	G							
V	S							
	G							
O	S							
	G							

XX

COMMENTS

This test provides a good example of both process and product scoring. The process scored behaviors (elements 1 through 13) are all scored on a go/no go basis. The standard for the scoring of the product (characteristics 14 through 20) are expressed as fixed criteria of less than 100%, i.e., 100% to 80% is within the acceptable range. This recognition of acceptable variation in performance is good. In Skill Qualification Testing, all criteria (go/no go for process scored elements and minimum standards for product characteristics) would have to be met (rather than process scoring contributing 13% of the test score (see 3. a.) and product scoring contributing 87% of the test score (see 3. b.)).

Process scoring also needs some expansion, e.g., element 3 ("Uses correct procedures to set up work unit.") needs more detail. For Skill Qualification Test purposes, of course, the student self-scoring would not be called for and all but the left hand column of the score sheet for items 14 through 20 would be deleted.

EXAMPLE 30

TASK: Print a Three Color Map.

(Excerpts from Test)

OBJECTIVE: Provided with an offset press (LXG or ATF-DP), necessary tools and supplies, a list of safety rules, TM 5-245, and Harris Operator's Manual, the student will perform make-ready and operational procedures to print clean error free three color map sheets. The student will also perform wash-up procedures to the satisfaction of the supervisor. All actions will be accomplished in accordance with procedures outlined in the manuals provided.

MATERIALS AND SUPPLIES REQUIRED:

- | | |
|-----------------------------|------------------------|
| 1. Map stock | 500 sheets per student |
| 2. Black, red and brown ink | As required |
| 3. Oil can w/OE 30 oil | 1 per press |
| 4. Gum | As required |
| 5. Etch | As required |
| 6. Rags | 5 per press per day |
| 7. Plates | 3 per student |
| 8. DMS color chart booklet | 1 per press |

EQUIPMENT: None

FACILITIES: Pressroom equipped with one offset press and workbench with tool set for each group of designated students.

X X

PRACTICAL EXERCISE GRADING SHEET

START TIME	FINISH TIME	GRADER	NAME	ROSTER NR
			DATE	GRADE
MANNER OF PERFORMANCE FOR JOB EVALUATION: PRINT A THREE COLOR MAP				
OBJECTIVES (DP) PREPARATION OF PRESS				
1.	PREPARATION OF CYLINDERS			9
2.	MOUNTING BLANKET CORRECTLY			6
3.	MOUNTING PLATE CORRECTLY			20
4.	ADJUSTMENT OF AIR BLAST AND SUCTION			3
5.	ADJUSTMENT OF PILE HEIGHT GOVERNOR			5
6.	SETTING OF TWO SHEET CHOKE			5
7.	SETTING OF PULL-IN WHEELS			4
8.	PROPER PUSH OF SIDE GUIDE			7
9.	SETTING OF DROP-BAR			5
10.	PROPER SETTING OF REGISTER WHEELS			6
11.	SETTING OF DELIVERY JOCKER BLADES			4
12.	SETTING OF INK FOUNTAIN ASSEMBLY			8
13.	CARE OF PLATE			4
14.	ADJUSTMENT OF INK ROLLERS			5
15.	ADJUSTMENT OF DAMPENING ROLLERS			5
QUALITY OF JOB				
1.	IMAGE FIDELITY: SCRATCHES, FINGER PRINTS AND LOW SPOTS			10
2.	WATER			10
3.	INK			10
4.	REGISTER			10
5.	CORRECT REGISTRATION MARKS			10
6.	CONDITION OF FINISHED PRODUCT			4
7.	EXCESS WASTAGE			
8.	OVERTIME PUNTING			
9.	OBSERVANCE OF SAFETY REGULATIONS			
Number of violations		1/2/3/4/5/6/	X 5 pts each	
10. PRESS TECHNIQUES				
Number of violations		1/2/3/4/5/6/	X 2 pts each	
TOTAL				150

[DETAILED INSTRUCTIONS FOR TEST ADMINISTRATORS]

(DP)
PRACTICAL EXERCISE TEST
JOB EVALUATION
INSTRUCTIONS OUT SHEET

Preparation of Press

1. a. Cleaning of cylinders and bearers - minus 5
b. Centering of plate cylinder - minus 2
c. Preparation of plate clamps - minus 2
2. a. Micrometer reading and selecting of packing - minus 2
b. Mounting blanket correctly - minus 2
c. Tension on blanket - minus 2
3. a. Micrometer reading and selecting of packing - minus 2
b. Positioning of plate on cylinder - minus 2
c. Tension of plate on cylinder - minus 2
d. Twisting of plate (two free twists) - minus 5
e. Swinging of plate (two free swings) - minus 5
f. Putting the impression on - minus 2
g. Removal of plate - minus 2
4. Yes or No
5. Yes or No
6. Yes or No
7. Yes or No
8. Yes or No
9. Yes or No
10. a. Sheet buckling - minus 2
b. Wheels not touching sheet - minus 2
c. Unequal tension - minus 2
11. Yes or No
12. a. Not even - minus 6
b. Excess amount of ink - minus 2
13. a. Fail to clean off gum - minus 2
b. Fail to gum at specified times - minus 2
14. Form roller too tight - minus 5
15. Form roller too tight - minus 5

Quality of Job

Items 1, 2, 3, and 4 use Chart A

Chart A	
Percentage of bad sheets	Degree of Imperfection Slight - Moderate - High
0 - 30%	2
30 - 60%	4
60 - 100%	7

5. a. Correct position - minus 5
b. Correct size - minus 5

6. Yes or No

7. Use Chart B

Chart B - Penalty for excess waste	
Sheets wasted in excess of allotted 50 for each color	Points
20 to 40 sheets	2
40 to 120 sheets	4

8. Use Chart C

Color Time Chart C	
Color	Time
Black	6 hrs
Red	6 hrs
Brown	4 hrs
Blue	4 hrs
Green	4 hrs
Photo Map	4 hrs
Overtime 1 pt per	5 min up to 1/2 hour

COMMENTS

This looks like an excellent example of both process and product scoring. Great care appears to have been given to specifying scoreable elements.

For Skill Qualification Testing, differential weights would not be used. Each element would simply be checked as a pass or as a fail, and all scoreable elements on the "Detailed Instructions" would be incorporated into the "Grading Sheet".

EXAMPLE 31

TASK: Operation of Pippin Type Backhoe in Digging
and Refilling a Trench.

(Excerpts from Test)

INSTRUCTIONS TO STUDENT OR CANDIDATE:

(To be read and/or given to him)

X X

3. Move machine to designated work area and set machine up to dig a trench
TWO FEET WIDE, TWO FEET DEEP, 25 FEET LONG.
Trench to be dug FIVE FEET OFFSET FROM STAKES.
Dump dirt to your RIGHT.

During excavation you will encounter a buried 6" pipe.
This pipe is to be treated as if it were a gas main. You will be
required to dig up to - over - and under - baring the pipe -
without damaging it.

4. Backfill trench with loader bucket.
DO NOT HIT STAKES.
Smooth up area as it was before digging.
5. Move machine to designated parking area and park as if you were leav-
ing it overnight.

X X

INSTRUCTIONS TO FIELD TEST EXAMINER:

1. Visually follow student or candidate to see if he checks the following:

Walks around machine looking for repairs needed.
Wet or leak spots on the ground. (Did he bring to your attention?)
Check hydraulic hoses, fan belt, battery water, radiator water,
engine oil, hydraulic oil, bucket linkage on both, pin retainers,
and bucket condition. (Did he ask for lubrication gun to grease
machine or notice lost fittings?)
2. Did he check gear shift to see if in neutral or clutch disengaged?
Did he check instruments for operation?
Was warmup time allowed?
Was a check made of all controls to see if they operate?
Does he know what each control lever does?
Did he clean off cab glasses?
Were breaks tested?
Were steering controls tested?

3. Did the student or candidate travel machine in a safe manner?
 Was the backhoe unit chained in travel position or checked to see if it was secure?
 Did he look for overhead obstructions that were in the path of travel?
 Did he stop machine near job site, park in safe condition (bucket on ground - brakes set - engine shut off) then dismount and look at job area before setting up machine?
 Did he have any questions?
 Did he set up machine on center line (Were outriggers used?) five feet offset of stakes?
 Does he handle backhoe smoothly?
 Does he keep level or smooth trench bottom?
 Is dirt piled far enough from trench to have two feet walkway?
 Are loose rocks or dirt removed from the top edges of trench?
4. Does he use the loader bucket properly for backfilling?
 Does he observe the area behind him before backing up?
 Did he run over loose dirt in trench to compact it?
 Was area smoothed off before leaving?
5. When moved to parking area, did he:
 Put all buckets on the ground,
 Set brakes,
 Allow engine to idle for few minutes,
 Turn off ignition,
 Remove key,
 Put machine in gear, and
 Apply parking brake?
 Did he make a last visual inspection around the machine for possible leaks, breaks, cut tires, or other items?

X X

SCORING

(BACKHOE - PIPPIN TYPE ONLY)

Scoring is based on 100 raw points.
 If "Total Points Deducted" exceeds 40 points, candidate fails on this piece of equipment only.

<u>F A U L T S</u>	<u>P O I N T S D E D U C T E D</u>										
	<u>50</u>	<u>45</u>	<u>40</u>	<u>35</u>	<u>30</u>	<u>25</u>	<u>20</u>	<u>15</u>	<u>10</u>	<u>5</u>	<u>0</u>
Unsafe operation or practices											
Inefficient operation of machine											
Unsatisfactory job performance											
Handling of controls not smooth											
Abuse of machine											
Does not follow instructions											
Disregard for his safety and machine											

TOTAL POINTS DEDUCTED _____

100 Minus Total Deductions = SCORE FOR THIS TEST _____

COMMENTS

The detailed "Instructions to Field Test Examiner" are good, although more specificity is needed in some parts. For example, in part 2 of the instructions, "Does he know what each control lever does?", should be broken into observations about each control as it first comes into play in performing the task.

The instructions, since this is a process scored test, should all be written in the present tense. For example, "Checks gear shift" rather than "Did he check gear shift?". As written, the Instructions to the Field Test Examiner suggest that the entire performance can be observed and scored after the fact. At present, of course, this is the only way the test can be scored, since the score sheet is a summary. Instead, the behaviors listed in the Instructions to the Examiner should be used for a detailed scoring of performance.

The scoring system, as shown, is very judgmental. Observable elements that are to contribute to each summary category are not specified. Finally, a score should not be generated by subtracting points for errors made from a total arbitrary aggregate. Checkmarks should be given for each behavior that is required as it is performed. The emphasis in scoring should be placed upon the correct performance of all observable elements of the test. If scoring is done in this manner, it solves the problem of how many points should be deducted, which, as written, is left entirely to the judgment of the scorer.

We believe that this is a good candidate for inclusion in a Skill Qualification Test, if the scoring procedure is improved.

EXAMPLE 32

TASK: Disassembly and Assembly of Machinegun.

(Excerpts from Test)

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4. TEST OBJECTIVES:

a. Given an M60 machinegun, student must be able to disassemble the gun into six major groups.

b. Given a disassembled M60 machinegun, student must be able to assemble the gun, and the gun must function properly.

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II. Scoring. Student must disassemble M60 machinegun into six major groups for 4 points. The feed tray and forearm assembly will not be removed. Student must assemble gun for 6 points; the gun must function after assembly. As indicated below, partial credit for procedure is allowed up to the point the student deviates from the prescribed sequence of assembly/disassembly. If student fails to complete both phases of the test in 7 minutes, he gets credit only for the phase he completes.

	<u>Yes</u>	<u>No</u>	<u>Weight</u>	<u>Score</u>
A. Disassembled machinegun:			4	<hr/>
B. Correct procedure in disassembly. In following sequence:				
1. Stock group:			1	<hr/>
2. Buffer group:			1	<hr/>
3. Operating group:			2	<hr/>
4. Trigger housing group:			1	<hr/>
5. Barrel group:			1	<hr/>
6. Receiver group:			1	<hr/>

	<u>Yes</u>	<u>No</u>	<u>Weight</u>	<u>Score</u>
C. Assembled machinegun:			6	_____
D. Correct procedure in assembly. In following sequence:				
1. Barrel group:			1	_____
2. Trigger housing group:			1	_____
3. Operating group:			2	_____
4. Buffer group:			1	_____
5. Stock group:			1	_____
E. Function check:			2	_____
			Total Weight:	25 _____
			Total Score:	_____

NOTE:

If the student does not follow the proper sequence, he should receive the points allotted in the respective areas up to the time of the error. Nevertheless, if he correctly/completely disassembles or assembles the machinegun, he should receive the allotted 4 or 6 points, as appropriate. If the weapon does not function properly because of incorrect assembly, he should receive no credit for assembly (6 points), but he should be allotted those points relating to correct sequence.

COMMENTS

For a Skill Qualification Test the differential weighting given to the "disassembly" and "assembly" of different groups is inappropriate.

With simple checkmarks to indicate proper performance of each step, there is no reason to give "bonus" points for "A. Disassembled Machine Gun" and "C. Assembled Machine Gun" if the standard (not stated) is correct performance of all steps in the sequence, including a successful function check.

Also, the score sheet is poorly designed. It could allow confusion between checks under "Yes" and "No". The score sheet should clearly divide the "Yes" and "No" columns.