

TEACHING AIDS: Formula Scoring of Multiple-Choice Tests
(Correction for Guessing)

Robert B. Frary

Virginia Polytechnic Institute and State University

Recommended Procedures

I. Preliminary Activity

The TEST OF GENERAL KNOWLEDGE is designed orient participants and stimulate discussion. It should be administered without comment before any actual discussion of formula scoring and may be duplicated for this purpose. Complaints about difficulty or absurdity of the items should be passed off lightly, perhaps with the suggestion that a discussion of the test will follow.

II. Discussion of Test

Participants should receive a copy of the answer key and score their tests using the formula $FS = R - W/3$. The discussion can be initiated by asking whether any participants had omissions. This may be followed by participant identification of wrong choices intended to be obviously wrong. A list of these may be provided. The discussion should try to determine why there were any omissions, given the obviously wrong answers and the test instructions to guess in this instance. (If there were no participant omissions, the discussion can explore why more naive examinees might have omitted items.) The purpose is to highlight misconceptions common about formula scoring and provide good motivation for the discussion to follow.

III. Instruction

The instructional module is designed to be compatible with a conventional lecture approach to instruction. However, the instructor should feel free to improvise. If possible, it would be desirable to administer the TEST OF GENERAL KNOWLEDGE at one session and provide copies of the instructional module for study prior to the next session.

IV. Evaluation

After instruction, the multiple-choice self-test for the module should be administered with number-right scoring directions (answer all items regardless of knowledge). Participants should be provided an answer key and permitted to keep their copies of the test. A discussion of the answers is highly desirable. If the instructor wishes to use the responses for evaluation, separate answer sheets should be provided.

TEST OF GENERAL KNOWLEDGE

INSTRUCTIONS: Your score will be the number of questions you answer correctly MINUS A FRACTION OF THOSE YOU ANSWER INCORRECTLY. If you do not know the answer but can eliminate one or more wrong choices or have a hunch, you should guess. However, you should not guess at random among all the choices of a question.

READ
CAREFULLY

1. What is the capital of Burkina Faso (formerly Upper Volta)?
 - 1) Ouagadougou
 - 2) Nouakchott
 - 3) Douala
 - 4) Cape Town
2. Which of the following is an Indo-European language?
 - 1) Polish
 - 2) Finnish
 - 3) Chinese
 - 4) Hungarian
3. Which one of the following has NO error of grammar or usage?
 - 1) Give the report to whoever is on the committee.
 - 2) Everybody should get their hats and coats.
 - 3) She don't have any money.
 - 4) This checkout is for customers with 12 items or less.
4. The water pollution process due to phosphates in detergents is called
 - 1) enzymatic action.
 - 2) eutrophication.
 - 3) acid rain.
 - 4) biodegrading.
5. Which of the following states has the largest land area?
 - 1) Washington
 - 2) North Dakota
 - 3) Delaware
 - 4) Oklahoma

6. Which of the following is the oldest Land Grant university?
 - 1) University of Georgia
 - 2) University of Hawaii
 - 3) Pennsylvania State University
 - 4) University of Massachusetts

7. Between which pair of cities is the airplane flight distance the longest?
 - 1) Chicago to Detroit
 - 2) Albuquerque to Atlanta
 - 3) Los Angeles to Tulsa
 - 4) Phoenix to New Orleans

8. The calculus was developed independently by
 - 1) Newton and Gauss
 - 2) Leibniz and Gauss
 - 3) Newton and Leibniz
 - 4) Newton and Einstein

9. Suriname used to be called
 - 1) Portugese Guinea
 - 2) Cambodia
 - 3) French Guiana
 - 4) Dutch Guiana

10. Which of the following was U.S. President for the shortest amount of time?
 - 1) Chester A. Arthur
 - 2) Gerald Ford
 - 3) Millard Fillmore
 - 4) Lyndon Johnson

KEY TO TEST OF GENERAL KNOWLEDGE

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|-------|-------|-------|-------|--------|
| 1. 1) | 3. 1) | 5. 2) | 7. 4) | 9. 4) |
| 2. 1) | 4. 2) | 6. 1) | 8. 3) | 10. 2) |

WRONG CHOICES INTENDED TO BE OBVIOUS ON TEST OF GENERAL KNOWLEDGE

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|-------|-------|-------|-------|--------|
| 1. 4) | 3. 3) | 5. 3) | 7. 1) | 9. 2) |
| 2. 3) | 4. 3) | 6. 2) | 8. 4) | 10. 4) |