

Traumatic Head Injury Exercise

Instructor's Copy

Behavioral Research Aspects of Safety and Health Group (BRASH)
Institute for Mining and Minerals Research (IMMR)
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¹ This exercise was developed and field tested under U. S. Bureau of Mines research contract no. H0348040. The views and conclusions contained in this document are those of the authors and should not be interpreted as necessarily representing the official policies or recommendations of the Interior Department's Bureau of Mines or the U. S. Government.

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Introduction

This document contains most of the materials needed to use the exercise. The main part of the document is the instructor's copy. It tells how to use the exercise, presents the objectives, the master answer sheet, the scoring key, and discussion notes to be used following the exercise. The last part of this document is three appendices. Appendix A is the exercise problem booklet. This booklet can be duplicated locally. The booklets are reusable. One is needed for every person in the classroom. Appendix B is the answer sheet. Copies of this answer sheet must have the invisible ink answers that appear in Appendix C printed on them². Answer sheets are consumable. One is needed for each group of 3 to 5 persons who work the exercise.

Exercise Summary

Read this section first. It determines if the exercise is appropriate for your classes. If you choose to use the exercise, examine the table of contents and review the remainder of this document.

<u>Type:</u>	Invisible ink
<u>Length:</u>	Eight questions (20 minutes for administration plus 30 minutes for discussion)
<u>Skills:</u>	Anticipating and preventing a haulage accident Recognizing hazardous overhanging brows and their potential for injuries to equipment operators Suggesting ways to correct or overcome the hazard Conducting a primary and secondary survey Administering first aid to a miner with suspected head and neck injuries
<u>Audience:</u>	Underground coal miners
<u>Location:</u>	Underground
<u>Problem:</u>	You are a scoop operator in 31 to 35 inch coal. Your cousin Bud operates another scoop. When Bud is backing his scoop out of #1 entry, you hear his hat strike a low overhanging brow, followed by his cursing. He is OK. Now you must decide what to do to prevent an accident. Later an accident occurs in the same area. Now you have to decide what to do to help Bud.

² You can do this yourself if you have the proper equipment, or you may obtain copies of preprinted answer sheets from MSHA, National Mine Health & Safety Academy, Dept. of Instructional Materials, 1301 Airport Road, Beaver, WV 25813-9426 phone 304-256-3257, fax 304-256-3368 or email to lord-mary@msha.gov.

How To Use This Exercise

1. Look at the performance objectives. Decide if the exercise is relevant for your mine training class.
2. Work through the exercise with the developing pen and score your responses.
3. Read the master answer sheet for the exercise. Look at all the answers.
4. Read the "Instructor's Discussion Notes" for the exercise.
5. Become thoroughly familiar with the problem so that you can present it to your class without reading it. Put the illustrations on an overhead projector so you can use these to help explain the problem.
6. When you present the exercise to the class:
 - Give each person an exercise booklet, and each group of 3 to 5 persons one answer sheet and a developing pen.
 - Demonstrate how to select and mark answers using the developing pen.
 - Go over the instructions for doing the exercise with the whole group.
 - Explain the problem making sure everyone understands the problem situation.
 - Have the class members work the exercise.
 - When the class members finish, have them figure up their score using the instructions at the end of the exercise.
 - When everyone has finished, discuss the exercise. Let class members discuss the merits of each answer. Add your own ideas.

Performance Objectives for Traumatic Head Injury

Objective number	Capability verb(s)	Description of required performance and conditions under which it is to occur
1. HA ³	Evaluate Select	An appropriate course of action, subsequent to a minor haulage accident in a low coal seam with irregular roof, to prevent a more serious accident
2. HA	Recognize Evaluate	A hazardous overhanging brow that should be reported to management
3. HA	Discriminate Identify	From among a set of reasonable measures, the best actions to take to prevent a reoccurrence of striking an overhang
4. HA/GC	Recognize Evaluate Select	Appropriate action subsequent to an unwitnessed probable haulage accident in a low coal seam with an irregular roof
5. FA	Recognize Assess Select	The most immediate concern for a victim of a neck wrenching accident, and actions that could cause further injury
6. FA	Select Execute	Correct actions for conducting a primary survey for a suspected traumatic head injury
7. FA	Recall Evaluate Select	The seriousness of a suspected spinal injury and the importance of avoiding unnecessary movement of a victim

³ Skill and knowledge domain abbreviations:

HA = haulage

GC = ground control

FA = first aid

Master Answer Sheet for Traumatic Head Injury

Use this answer sheet to mark your selections. Rub the developing pen gently and smoothly between the brackets. Don't scrub the pen or the message may blur. Be sure to color in the entire message once you have made a selection. Otherwise you may not get the information you need.

Question A (Choose only ONE unless you are told to "Try Again!")

1. [There is a more critical first step. Try again!]
[]
2. [Correct. Although you think he's not seriously injured due to his cursing, this]
[is still a good idea. Do the next question.]
3. [Bud may be injured. Try again!]
4. [Bud may be injured. Try again!]

Question B (Choose only ONE unless you are told to "Try Again!")

5. [A hazardous condition exists. Try again!]
6. [You need to do something now. Try again!]
[]
7. [A hazardous condition exists. Try again!]
8. [Correct. This brow is a hazardous condition. It requires immediate attention]
[before another similar accident occurs. Do the next question.]

Question C (Choose only ONE unless you are told to "Try Again!")

9. [Correct. This is the best solution. This would eliminate the hazard, but might]
 [be difficult due to roof composition and layering. Color in the box under]
 [answer 14.]
10. [The 31"-35" mining height doesn't make this practical. Canopies are usually]
 [not used at such low mining heights. Try again!]
11. [This is only a short term solution. The hazard still exists. Try again!]
12. [Not a bad idea for the long term, but there is a better first thing to do. Try]
 [again!]
13. [This could tear up the underclay bottom, making the roadways rough, rutted,]
 [and slippery. Try again!]
14. [Good idea, but there is a better first thing to do. Try again!]
-
- [It is best to remove overhangs in heavy traffic areas as soon as possible.]
 [Meanwhile, everyone on the section should be made aware of hazards that]
 [result from changes in mining conditions or methods. Also, operators should]
 [be reminded to face the direction of travel. Do the next question.]

Question D (Choose only ONE unless you are told to "Try Again!")

15. [Bud could be injured or ill! Try again!]
16. [Correct. Bud should have been on his way to the dump by now. He could be]
 [be injured or ill. Do the next question.]
17. [Your nearest buddies are a least two places over. Machinery is running,]
 [making it difficult to hear. Bud may be in trouble. Try again!]
18. [This would waste time. Bud could be in trouble. Try again!]

Question E (Choose only ONE unless you are told to "Try Again!")

19. [Bud may need your help right now. Try again!]
20. [This may injure Bud. Try again!]
21. [Correct. Do the next question.]
22. [This may injure Bud. Try again!]
23. [Not a good idea. Try again!]

Question F (Select as MANY as you think are correct.)

24. [Correct. His breathing is now labored. When he breathes, only his abdomen]
[moves. His chest is not moving.]
25. [Absolutely not! This could cause further serious injury.]
26. [Correct. There is no response on either one.]
27. [Correct. No bleeding is seen.]
28. [Correct. No blood or fluid is seen.]
29. [Correct. You detect no deformities in Bud's spine.]
30. [Correct. You find blood and a sunken area at the base of the skull.]
31. [This could cause further serious injury.]
32. [Correct. Both pupils constrict normally.]
33. [Correct. His pulse is about 120 and weak.]
34. [Absolutely not! This could cause further serious injury.]

Question G (Choose only ONE unless you are told to "Try Again!")

35. [This could cause further serious injury. Try again!]
36. [This could cause further serious injury. Try again!]
37. [Correct. Special care is required because a spinal injury is possible.]
[Do the next question.]
38. [Because there is no sign that his airway is obstructed, this should not be]
[done. Try again!]
39. [This could cause further serious injury. Try again!]

Question H

End of Problem

Finding your score

Number of "Correct" answers you colored in = (1)_____

25 minus number of incorrect answers you colored in = (2)_____

Add blanks one and two to get your total score = (3)_____

Highest possible score = 39

Lowest possible score = 0

Instructor's Discussion Notes for Traumatic Head Injury

Use the information presented here and on the master answer sheet, your own ideas and experience and that of the miners in your class to discuss the exercise after it is completed. Group discussion can strengthen knowledge and skills, correct errors, and relate the exercise content to the experiences of the miners. After they have worked the exercise, miners enjoy discussing the problem. They also frequently think of better ways to respond to a problem than those listed among the answers. The purpose of the exercise is to help miners think about and remember basic knowledge and skills they may someday need to deal with a mine emergency. The discussion following the exercise can contribute to this goal and tailor the exercise content to the needs of the group you are training.

It is helpful to show overhead transparencies of the answers on the master answer sheet during the discussion, while the miners look at their problem booklets. This allows you to lead the group through the exercise and to discuss all the answers to each question. Most of the information about why particular answers are correct or incorrect is given on the master answer sheet.

The following notes provide additional information for you to discuss with your class. Incorporate the ideas you find here with your own ideas and make these points at the appropriate place in the discussion of the exercise.

Question A - The correct answer is 2. The miners should realize that all accidents are potentially serious, even if no obvious injuries are seen. By asking Bud what happened, diagnosis is easier. All other responses are incorrect because immediate attention is not given to Bud, who could be injured.

Question B - The correct answer is 8. Most companies require that employees report hazardous conditions to the nearest supervisor. Discuss the consequences of waiting until later, or worse yet, not reporting this hazardous condition once it is recognized. Here, the hazard potential is greatly increased because of the low mining height and the absence of protective canopies, which are not required in mining heights of less than 42 inches.

Question C - The correct answer is 9. This question should generate discussion about the best measure(s) for preventing a similar occurrence. Rather than to protect mobile equipment operators from contacting the roof through installation of canopies (10), or by warning lights, or reflective signs, or tapes as required by 30 CFR 75.1403-10 (11), addressing the problem by removing the brow is best. Walking, tripping, and stumbling hazards (a very common and high incidence accident classification) are increased by taking out underclay bottom for additional clearance (13). Additional hazard training (12) and reminders about the proper operation of mobile equipment (14) should be routine and not a substitute for correcting a recognized hazard. Since it can be argued that an imminent danger is posed by the brow, action should be quickly taken to remove it. If the overhang occurred in a less frequently traveled haul road, or if removal of the overhang is impractical, lights or reflective warnings should be installed.

Question D - The correct answer is 16. Miners should be aware of the expected location of other workers and equipment in the face area. From knowledge of where Bud usually is at the time the #2 scoop comes for another load, it is clear that something is wrong, either with the scoop or with Bud. All other responses postpone checking on Bud. The #2 scoop operator should have attempted to communicate with Bud before leaving the #1 entry for help. The accident had no witnesses and may have occurred several minutes earlier, so quick action is called for.

Question E - The correct answer is 21. The first step in first aid (assuming the environment is safe) is to assess the victim. The reasons for this are to prevent injury from inappropriate procedures (for example, see answers 20 and 23) and to make sure that the appropriate first aid is given as soon as possible. By this point in the problem, the miners should have picked up clues that suggest Bud has a traumatic head injury. They should know that a neck injury must be assumed in this situation.

Question -F - The correct answers are 24, 26, 27, 28, 29, 30, 32, and 33. The first steps of the assessment of the victim involve checking the airway, breathing, and circulation (A, B, C). Phillips (see references) adds a "D" to this "primary survey" which stands for "delicate central nervous system." In this step the victim's responsiveness and neck and spine are evaluated. If the victim is not found to need immediate first aid during the primary survey, a "secondary (head to toe) survey" is carried out. If a neck injury is suspected, the victim should not be moved unnecessarily during these examinations. Even though no deformities were felt, one cannot rule out a possible spinal injury. Also, in such low coal situations, it might be difficult to look into the victim's ears and nose (28), check his neck and spine (29), feel his skull (30), and check his pupils (32), without moving the victim. This is an opportunity to discuss potential complications to the administration of first aid, including: 1) awkward position of the victim, 2) limited, encumbered space, 3) difficulties presented by a victim who resists treatment, and 4) conflicting symptoms, making diagnosis uncertain.

Question G - The correct answer is 37. The results of the examinations in the previous questions further support the suspicion of neck injury. In this situation the first aider should manually immobilize the victim's head until more help and further means of immobilization arrive. A "jaw thrust" maneuver should be attempted only if there are signs of airway obstruction.

References

- Bergeron, J. D. (1982). First responder. Bowie, MD: Robert J. Brady Co.
- Phillips, C. (1986). Basic life support skills manual (2nd ed.). Englewood Cliffs, NJ: Brady Co.
- Campbell, J. E. (1985). Basic trauma life support: Advanced Hospital care. Bowie, MD: Brady Communications Co.
- O'Bryan, M. (1979). Report of investigation (Fatal Powered Haulage Accident). Mine ID No. 44-00749, Buchanan County, VA. Arlington, VA: MSHA.
- Office of the Federal Register. (July 1984). Code of federal regulation. Title 30 (Part 75). Washington, DC: U.S. Government Printing Office.

Scoring Key for Traumatic Head Injury

The correct answers are marked with an asterisk.⁴

Question	Answer Number							
A	1	2*	3	4				
B	5	6	7	8*				
C	9*	10	11	12	13	14		
D	15	16*	17	18				
E	19	20	21*	22	23			
F	24*	25	26*	27*	28*	29*	30*	31
G	32*	33*	34					
H	35	36	37*	38	39			

⁴ This page is printed in large type so that it may be copied and used as an overhead transparency.

Appendix A: Problem Booklet

Duplicate this copy of the problem booklet for use in your classes. **Booklets should be printed on only one side of the paper.** Each person in your class should have a problem booklet while they are working the exercise. The problem booklets are reusable.

You may obtain a copy of the problem booklet from MSHA, National Mine Health & Safety Academy, Dept. of Instructional Materials, 1301 Airport Road, Beaver, WV 25813-9426 phone 304-256-3257, fax 304-256-3368 or email to lord-mary@msha.gov.

Traumatic Head Injury

Problem Booklet

Instructions

Read the problem situation described on the next page. Then answer each of the eight questions. Do them one at a time. Don't jump ahead, but you may look back to earlier questions and answers. Most questions ask you to choose only one answer unless you are told to "Try again!" One question asks you to select as many answers as you think are correct. Follow the instructions for each question.

Background

The mine is non gassy in a 31"-35" seam with a thick slate top and underclay bottom.

The top is good and the section was firebossed prior to beginning the shift.

The face is 800 feet away from the portal.

This is a conventional section, but no loader is in use.

Two scoops are used for loading and face haulage; neither has a canopy.

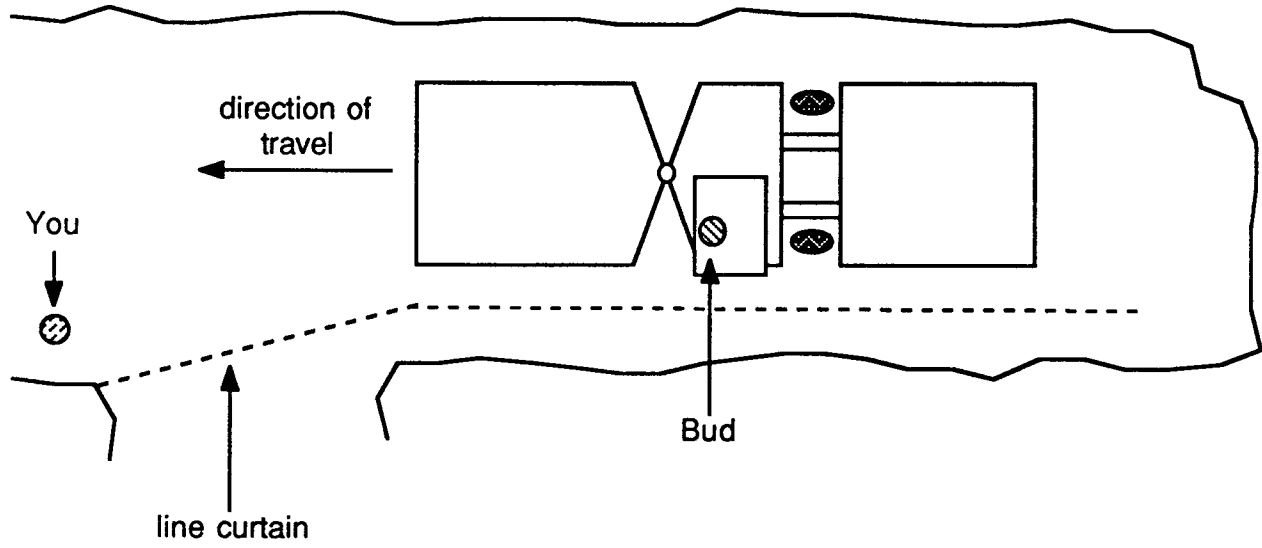
It is 7:30 a.m. and day shift has just begun.

The seam pinches out on the section's left side, causing the scoops to drag the roof and knock out roof bolts in the #1 and #2 entries. Eight to ten inches of immediate roof were taken on the previous shift for additional vertical clearance. This has left a severe overhanging brow in #1 and #2 entries.

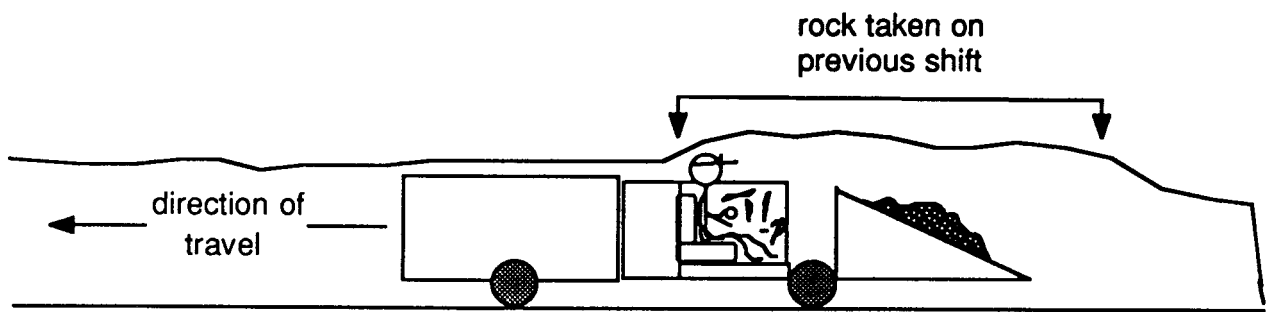
Yesterday, you and Bud loaded the rock and coal out of #1 and #2 after the extra roof was taken down for more clearance.

Problem

You are the #2 scoop operator. You are tightening the line curtain near the #1 face. (See Figure 1.) Your cousin, Bud Jackson, has nearly finished loading out #1, which was shot down at the end of the last shift. You hear a sound like a hard hat striking the roof and then considerable cursing. You look up toward the face and see a swinging cap lamp.



top view



side view

Figure 1: Top and side views of the #1 entry

Question A

Bud puts his hard hat back on and gets out of his scoop. What would you do now?
(Choose only ONE unless you are told to "Try Again!")

1. Go across the section and find the section boss to tell him what happened.
2. Crawl quickly up to Bud, check him for injuries, and ask what happened.
3. Yell at Bud, make sure he's OK, and continue your job.
4. Yell at Bud, make sure he's OK, and go find the section boss to tell him what happened.

Question B

Bud says "I'm OK. I hit my head on the brow that was left when we started taking extra top yesterday." You try to pull the brow down with a slate bar, but it is too large and solid. What would you do now? (Choose only ONE unless you are told to "Try Again!")

5. Satisfied that Bud is OK, go back to what you were doing.
6. Satisfied that Bud is OK, go back to work. You know it's important to tell your boss, but you can tell him at lunch time.
7. Tell Bud to pay more attention to what he's doing and go back to hanging curtain.
8. Immediately tell the section boss what happened.

Question C

You and Bud go tell the section boss what happened. The three of you talk about the risk of serious injury due to striking the roof or becoming caught between an overhang and the scoop frame. What is the best thing to do at this time to prevent a serious accident? (Choose only ONE unless you are told to "Try Again!")

9. Find a way to remove the brow to make the slope more gradual.
10. Install a canopy on the scoop and on all other mobile equipment on the section.
11. Put reflectors on the brow and along the ribs to warn of the sudden change of mining height.
12. Give additional hazard training to all miners on the section, particularly the mobile equipment operators.
13. Take bottom instead of top for additional clearance.
14. Remind all operators to always face the direction of travel when operating a piece of mobile equipment.

Question D

After lunch, loading continues. The brow has not yet been removed. You and Bud are loading out the #1 face. Your section boss has cautioned you both about the overhangs in #1 and #2. He says at the end of the shift he'll send in the pinner to take down the brow and to re-bolt. Ten minutes later you are returning for your fifth scoop of coal. You see that Bud's #1 scoop is still in the face. What would you do now? (Choose only ONE unless you are told to "Try Again!")

15. Assume that Bud's scoop has broken down. Back up toward the #2 entry, turn around, and go find the mechanic.
16. Park your #2 scoop a safe distance from Bud's and go see if something is wrong.
17. Holler to your buddies for help, wait for them to come, and then check on Bud.
18. Tram across the section, looking for the section boss.

Question E

You go up to the scoop which is stopped in the area of the overhang. The scoop is not running. You find Bud slumped over in the cab. He is muttering something you can't understand. What should you do now? (Choose only ONE unless you are told to "Try Again!")

19. Go for help.
20. Pull Bud from the operator's compartment.
21. Check Bud for injuries.
22. Tilt Bud's head back to open his airway.
23. Start Bud's scoop and move it a few feet in by the overhang where there is more overhead clearance.

Question F

A buddy arrives. You ask him to go for first aid supplies and to get help. Bud is still muttering under his breath as you check him for injuries. How should you check him? (Select as MANY as you think are correct.)

- 24. Check his breathing.
- 25. Turn his head from side to side.
- 26. Scratch each of his palms with your fingernail.
- 27. Look for bleeding.
- 28. Look in his ears and nose without tilting his head.
- 29. Gently run your fingers down his neck and spine, being careful not to move him.
- 30. Feel his skull with your fingertips.
- 31. Tilt him back in the seat and look at his chest.
- 32. Check his pupils without tilting his head.
- 33. Take his pulse.
- 34. Ask him if he can move his head from side to side.

When you have made your selection(s), do the next question.

Question G

Your buddy returns with the first aid kit and stretcher board and says that the EMT and others are on the way. What should you do now? (Choose only ONE unless you are told to "Try Again!")

35. Tell your buddy to help you lift Bud onto the stretcher board and then immobilize him.
36. Tell your buddy to help slide Bud onto the stretcher board, then elevate the foot end 12 inches.
37. Immobilize Bud's head, continue checking his pulse and breathing, and wait for help.
38. Maintain Bud's airway by using a "jaw-thrust" maneuver and wait for help.
39. Apply pressure to the sunken area of the skull with a sterile dressing.

Bud was properly immobilized, put on a stretcher board, and quickly taken outside, where he was transferred to an awaiting ambulance. Bud suffered a skull fracture and a concussion, but was able to return to work within two months.

Question H

List all the violations of state and federal laws and company rules that you can find in this problem. Write your answers on the lines on the answer sheet.

End Of Problem

Scoring your performance

1. Count the total number of responses you colored in that were marked "Correct!" Write this number in the first blank on the answer sheet.
2. Count the total number of "incorrect" responses you colored in. Subtract this number from 25. Write the difference in the second blank on the answer sheet.
3. Add the numbers in the first and second blanks.

The best possible score is 39.

The worst possible score is 0.

Appendix B: Answer Sheet Blanks

These are the answer sheet blanks. Copies of these blank answer sheets may be duplicated in the normal fashion. However, the answers that are found within the brackets must be printed on these blank answer sheets in invisible ink. These answers are found in Appendix C. If you have the capability to print invisible ink, make copies of the blank answer sheets. Make a master of the answers that appear in Appendix C. Then print the invisible ink on the blank answer sheets, being careful to make sure all pages print and that the appropriate answers line up with the appropriate blanks. The Master Answer Sheet shows all the answers in their proper places.

Most companies and trainers prefer to obtain copies of the preprinted answer sheets from MSHA, National Mine Health & Safety Academy, Dept. of Instructional Materials, 1301 Airport Road, Beaver, WV 25813-9426 phone 304-256-3257, fax 304-256-3368 or email to lord-mary@msha.gov.

The exercise is designed to be used in small groups. You will need one answer sheet for each group of 3 to 5 persons in your class. The answer sheets are consumable. You will need a new set for each class.

A developing pen is also needed by each person who marks an answer sheet.

Answer Sheet for Traumatic Head Injury

Use this answer sheet to mark your selections. Rub the developing pen gently and smoothly between the brackets. Don't scrub the pen or the message may blur. Be sure to color in the entire message once you have made a selection. Otherwise you may not get the information you need.

Question A (Choose only ONE unless you are told to "Try Again!")

1. []

2. []

3. []

4. []

Question B (Choose only ONE unless you are told to "Try Again!")

5. []

6. []

7. []

8. []

Question C (Choose only ONE unless you are told to "Try Again!")

9. []
[]
[]
10. []
[]
11. []
12. []
[]
13. []
[]
14. []
-
- []
[]
[]
[]

Question D (Choose only ONE unless you are told to "Try Again!")

15. []
16. []
[]
17. []
[]
18. []

Question E (Choose only ONE unless you are told to "Try Again!")

19. []
20. []
21. []
22. []
23. []

Question F (Select as MANY as you think are correct.)

- 24. []
- 25. []
- 26. []
- 27. []
- 28. []
- 29. []
- 30. []
- 31. []
- 32. []
- 33. []
- 34. []

Question G (Choose only ONE unless you are told to "Try Again!")

- 35. []
- 36. []
- 37. []
- 38. []
- 39. []

Question H

End of Problem

Finding your score

Number of "Correct" answers you colored in = (1)_____

25 minus number of incorrect answers you colored in = (2)_____

Add blanks one and two to get your total score = (3)_____

Highest possible score = 39

Lowest possible score = 0

Appendix C: Invisible ink Answers

These pages contain the answers that must be printed in the blanks of the answer sheet in Appendix B. These answers are spaced and sequenced correctly so that they exactly match up with the appropriate blanks on the answer sheet blank.

Once the answers have been printed in the answer sheet blanks, the developing pen reveals the formerly invisible printed message.

You may obtain preprinted answer sheets or you may prepare your own copies. To learn more about these options, and to determine how many answer sheets and developing pens you will need, see the introductory section of the Instructor's Copy.

There is a more critical first step. Try again!

Correct. Although you think he's not seriously injured due to his cursing, this is still a good idea. Do the next question.

Bud may be injured. Try again!

Bud may be injured. Try again!

A hazardous condition exists. Try again!

You need to do something now. Try again!

A hazardous condition exists. Try again!

Correct. This brow is a hazardous condition. It requires immediate attention before another similar accident occurs. Do the next question.

Correct. This is the best solution. This would eliminate the hazard, but might be difficult due to roof composition and layering. Color in the box under answer 14.

The 31"-35" mining height doesn't make this practical. Canopies are usually not used at such low mining heights. Try again!

This is only a short term solution. The hazard still exists. Try again!

Not a bad idea for the long term, but there is a better first thing to do. Try again!

This could tear up the underclay bottom, making the roadways rough, rutted, and slippery. Try again!

Good idea, but there is a better first thing to do. Try again!

It is best to remove overhangs in heavy traffic areas as soon as possible. Meanwhile, everyone on the section should be made aware of hazards that result from changes in mining conditions or methods. Also, operators should be reminded to face the direction of travel. Do the next question.

Bud could be injured or ill! Try again!

Correct. Bud should have been on his way to the dump by now. He could be be injured or ill. Do the next question.

Your nearest buddies are a least two places over. Machinery is running, making it difficult to hear. Bud may be in trouble. Try again!

This would waste time. Bud could be in trouble. Try again!

Bud may need your help right now. Try again!

This may injure Bud. Try again!

Correct. Do the next question.

This may injure Bud. Try again!

Not a good idea. Try again!

Correct. His breathing is now labored. When he breathes, only his abdomen moves. His chest is not moving.

Absolutely not! This could cause further serious injury.

Correct. There is no response on either one.

Correct. No bleeding is seen.

Correct. No blood or fluid is seen.

Correct. You detect no deformities in Bud's spine.

Correct. You find blood and a sunken area at the base of the skull.

This could cause further serious injury.

Correct. Both pupils constrict normally.

Correct. His pulse is about 120 and weak.

Absolutely not! This could cause further serious injury.

This could cause further serious injury. Try again!

This could cause further serious injury. Try again!

Correct. Special care is required because a spinal injury is possible.
Do the next question.

Because there is no sign that his airway is obstructed, this should not be done. Try again!

This could cause further serious injury. Try again!