

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.

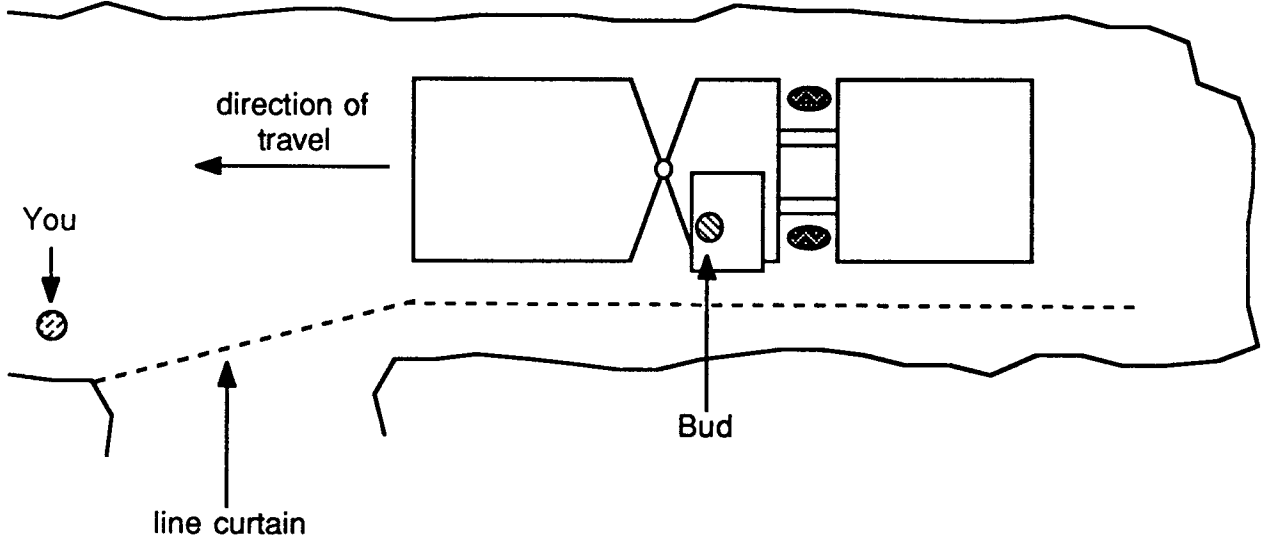
It is 7:30 a.m. and day shift has just begun.

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.

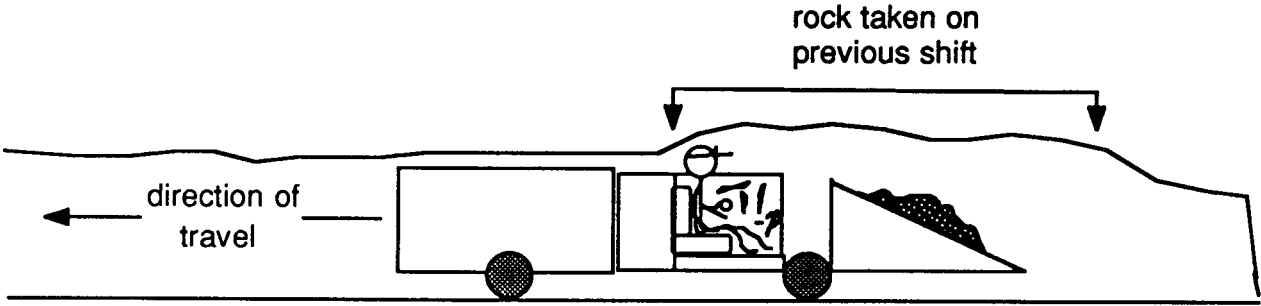
Yesterday, you and Bud loaded the rock and coal out of #1 and #2 after the extra roof was taken down for more clearance.

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.