U.S. Department of Agriculture

PROGRAMED INSTRUCTION

ON

Survival Preparedness for Rural Areas

Prepared by
U.S. Department of Agriculture
in cooperation with
Office of Civil Defense

INTRODUCTION

TO THE TRAINEE

During national emergencies, employees of the United States Department of Agriculture have provided invaluable services to the Nation and its citizens -- services that have saved lives and prevented losses of crops, livestock, forests, and private property.

What Department employees can and do accomplish has been evident during every major flood, hurricane, tornado, and forest fire. Hopefully USDA men and women will never have to carry out emergency duties following a nuclear attack. In the event of such a tragedy, however, USDA employees would have heavy responsibilities and duties. The initial necessity in such an event would be to survive and that is why self-protective measures are emphasized in this handbook. It is vital that USDA personnel be available and know how to effectively carry out their post-attack assignments.

The training set forth in this book -- which applies to activities in times of flood, hurricane, and tornado as well as civil defense efforts -- was developed by the Forest Service in cooperation with the Office of Civil Defense and has proven effective as a means of training. It was developed for use in areas where regular civil defense training is not readily available. It is now being made available to other USDA personnel who have not had the benefit of such training.

You will find this self-teaching booklet is an effective training device. The six hours or so that you will spend in completing the program will be time well spent. I suggest that you give this material your thorough and complete attention. Ask your family to carefully review this special training course work, too.

Clifford M. Hardin

Secretary of Agriculture

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This course consists of three parts:

PART ONE – Pre-Test
PART TWO – Programed Textbook
PART THREE – Progressive Referral Questions

Your score on the Pre-Test will determine whether you:

— skip the course.
— take the Progressive Referral Questions only.
— study the Programed Textbook only.

CONTENTS

PART ONE
PRE-TEST

INTRODUCTION

The course that follows this test will teach you the major facts and principles regarding personal and family preparedness and survival in the event of a nuclear attack. Further, you will learn how these principles can be used to increase your chances of survival in natural disasters such as fire, flood, hurricanes, and tornadoes.

In order to ensure that you do not cover material that you have already learned, take the pre-test on the following pages. The score that you make will determine whether you will skip the course, take the progressive referral questions only, or study the main body of instruction.

TURN THE PAGE AND READ THE INSTRUCTIONS FOR THE PRE-TEST

INSTRUCTIONS

1. The questions on the following test are multiple-choice. Each question has four possible answers to choose from. To show the answer you pick as correct, put a check mark in front of your choice, like this:

   The subject of this course is:

   _____ a. Income Taxes.
   __✓__ b. Survival.
   _____ c. (both)
   _____ d. (neither)

2. Some questions may have two correct answers. To show that you have picked both answers as correct, check the "both" choice, like this:

   This course teaches you:

   _____ a. survival procedures.
   _____ b. about fallout shelters.
   __✓__ c. (both)
   _____ d. (neither)

3. Some questions may have no correct answer since "neither" of the given answers is correct. Show how you would mark your answer on this sample question:

   The purpose of this course is to teach you how to:

   _____ a. shoot a gun.
   _____ b. get promoted.
   _____ c. (both)
   _____ d. (neither)

   (You should have put a check mark in front of d, since neither answer is correct.)

4. Some questions do not use "both" and "neither" choices. They may look like this: (Mark your answer.)

   When you finish this course, you will:

   _____ a. be able to fight a war.
   _____ b. be promoted.
   _____ c. be an expert on nuclear explosives.
   _____ d. (none of these)

   (You should have put a check mark in front of d, since none of these answers are correct.)

5. Other questions may look like the example below. Mark your answer.

When you finish this course, you will know something about:

_____ a. nuclear attack.
_____ b. emergencies such as fire and flood.
_____ c. such disasters as hurricanes and tornadoes.
_____ d. (all of these)

(You should have put a check mark in front of choice d, since all the answers are correct.)

6. Some questions have a "none of these" or "all of these" choice even when one right answer is given. Mark your answer to this question:

Which of these describes what you should do to show which answer you have picked?

_____ a. Draw a line across the answer.
_____ b. Raise your hand.
_____ c. Put a check mark in front of it.
_____ d. (none of these)

(You should have put a check mark in front of c.)

NOW TURN THE PAGE AND BEGIN THE PRE-TEST

1. Which of these describes the basic goal of Civil Defense?

___ a. To save as many lives as possible in case of nuclear attack
___ b. To prevent a deliberate nuclear attack on the United States
___ c. (both)
___ d. (neither)

2. How is the Civil Defense goal carried out?

___ a. Through a program of counter attack
___ b. Through a program of fallout shelters
___ c. By teaching civilians how to fight
___ d. (none of these)

3. The main objective of the Civil Defense Fallout Shelter Program is:

___ a. a shelter space for everyone, within reach, wherever they may be.
___ b. early warning.
___ c. (both)
___ d. (neither)

4. The Office of Civil Defense suggests the establishment of fallout shelters in:

___ a. cities.
___ b. rural areas.
___ c. (both)
___ d. (neither)

5. Which of these signs designates a community fallout shelter?

___ a. 

___ c. 

___ b. 

___ d. 

6. Which is true?

____ a. Many of the things you learn about protection from nuclear attack can also be used in other emergencies, such as floods, fires, hurricanes, and tornadoes.

____ b. The things you learn about protection from nuclear attack are not useful in any other emergencies.

____ c. Fallout shelters should be used only for protection from fallout.

____ d. (none of these)

7. Which of these lists of definitions is correct?

____ a. ATOMIC ENERGY — the fallout released by an explosion of TNT.
NUCLEAR — refers to Civil Defense.
NUCLEAR WEAPONS — weapons in which the explosion results from the energy released by atomic reaction.
NUCLEAR WARFARE — war in which one nation attacks another using only nuclear weapons.

____ b. ATOMIC ENERGY — the energy released by an atomic reaction, as in the explosion of nuclear weapons.
NUCLEAR — refers to atomic energy.
NUCLEAR WEAPONS — weapons in which the explosion results from the energy released by atomic reaction.
NUCLEAR WARFARE — war in which most of the weapons are of the atomic energy class.

____ c. (both)

____ d. (neither)

8. Which of these lists of definitions is correct?

____ a. A-BOMB and H-BOMB — abbreviations for the nuclear weapons atom bomb and hydrogen bomb.
1-KILOTON WEAPON — a nuclear weapon with the same ability to destroy as one million tons of TNT.
1-MEGATON WEAPON — a nuclear weapon with the same ability to destroy as one thousand tons of TNT.

____ b. A-BOMB and H-BOMB — abbreviations for the nuclear weapons atom bomb and hydrogen bomb.
1-KILOTON WEAPON — a nuclear weapon with the same ability to destroy as one thousand tons of TNT.
1-MEGATON WEAPON — a nuclear weapon with the same ability to destroy as one million tons of TNT.

____ c. A-BOMB and H-BOMB — abbreviations for the nuclear weapons atom bomb and hydrogen bomb.
1-KILOTON WEAPON — a one-thousand-ton atomic bomb.
1-MEGATON WEAPON — a one-million-ton atomic bomb.

____ d. (none of these)

9. Which of these lists of definitions is correct?

____ a. GROUND ZERO — the point on the ground over which a nuclear weapon explodes.
NUCLEAR RADIATION — invisible rays of energy that cannot be felt but can be harmful to the human body.
INITIAL NUCLEAR RADIATION — the burst of radiation sent out from a nuclear weapon within the first minute after the explosion.

____ b. GROUND ZERO — the point on the ground over which a nuclear weapon explodes.
NUCLEAR RADIATION — invisible rays of energy that cannot be felt but are harmful to the human body.
INITIAL NUCLEAR RADIATION — the burst of radiation sent out from a nuclear weapon several minutes after the explosion.

____ c. GROUND ZERO — the point on the ground over which a nuclear weapon explodes.
NUCLEAR RADIATION — invisible rays of energy that are felt but are not harmful to the human body.
INITIAL NUCLEAR RADIATION — the burst of radiation sent out from a nuclear weapon at the same time as the explosion.

____ d. (none of these)

10. Which of these lists of definitions is correct?

____ a. BLAST WAVE — the sudden strong push of air that is made by a nuclear explosion.
BLAST WIND — the tremendous gust of wind that travels in front of the blast wave.

____ b. BLAST WAVE — the gust of air pressure that follows the blast wind.
BLAST WIND — the rush of air which travels behind the blast wave and may be many times stronger than hurricane winds.

____ c. BLAST WAVE — the sudden strong push of air that is made by a nuclear explosion.
BLAST WIND — the rush of air which travels behind the blast wave and may be many times stronger than hurricane winds.

____ d. (none of these)

11. Which of these lists of definitions is correct?

____ a. RADIOACTIVITY — sending out radiation.
FALLOUT — when something falls out of a cloud.
FALLOUT RADIATION — the radiation sent out by fallout particles.

____ b. RADIOACTIVITY — sending out radio waves.
FALLOUT -- radioactive material from a nuclear explosion that falls back to earth in particles, or as a dust.
FALLOUT RADIATION — the radiation sent out by fallout particles.

____ c. RADIOACTIVITY — sending out radiation.
FALLOUT — radioactive material from a nuclear explosion that falls back to earth in particles, or as a dust.
FALLOUT RADIATION — the radiation sent out by fallout particles.

____ d. (none of these)

12. Which of these lists of definitions is correct?

____ a. EARLY FALLOUT — the radioactive particles that fall back to earth within 24 hours after a nuclear explosion.
DELAYED FALLOUT — the lighter radioactive particles that fall back to earth more slowly than early fallout.

____ b. EARLY FALLOUT — the heavy radiation that falls back to earth sooner than the rest.
DELAYED FALLOUT — the lighter radiation that falls back to earth more slowly than heavy radiation .

____ c. EARLY FALLOUT — the radioactive particles that fall back to earth within 24 hours after a nuclear explosion.
DELAYED FALLOUT — the fallout particles that are delayed in arrival due to blast winds.

____ d. (none of these)

13. Which of these lists of definitions is correct?

____ a. CONTAMINATION — the deposit of radioactive material on areas, objects, and people following a nuclear explosion.
DECONTAMINATION — the process of getting rid of radioactive particles.
RADIATION SICKNESS — the contagious sickness that people get from being exposed to radiation.

____ b. CONTAMINATION — the deposit of radioactive material on areas, objects, and people following a nuclear explosion.
DECONTAMINATION — the process of getting rid of radioactive particles.
RADIATION SICKNESS — the sickness that people may get after exposure to radiation.

____ c. (both)

____ d. (neither)

14. Which of these lists is correct?

____ a. FALLOUT SHELTER — any type of structure that provides adequate protection from fallout.
ROENTGEN — a unit for measuring the amount and intensity of radiation.
RADIOACTIVE DECAY — decrease in the radioactivity of material as time passes.

____ b. FALLOUT SHELTER — any type of structure that provides adequate protection from fallout.
ROENTGEN — a unit measuring blast waves.
RADIOACTIVE DECAY — radiation gaining in power as time passes.

____ c. FALLOUT SHELTER — any type of structure that provides adequate protection from fallout.
ROENTGEN — a unit for measuring heat rays.
RADIOACTIVE DECAY — anything decaying due to radiation.

____ d. (none of these)

15. Which of these is the type of modern weapon that is considered most dangerous to man?

____ a. nuclear
____ b. biological
____ c. conventional
____ d. chemical

16. Which of these is a list of the products of a nuclear explosion?

____ a. Radioactive decay, roentgen, ground zero and nuclear weapons
____ b. Initial nuclear radiation, heat, blast wave, blast wind and fallout
____ c. (both)
____ d. (neither)

17. Which of these products of a nuclear explosion is dangerous to man?

____ a. blast wave
____ b. initial nuclear radiation
____ c. fallout
____ d. (all of these)

18. Which of these is one of the conditions that determine the extent of fallout from a nuclear explosion?

____ a. type of aircraft
____ b. altitude of the bomb burst
____ c. (both)
____ d. (neither)

19. Which of these statements is true regarding exposure to radiation?

____ a. During an average lifetime, every human receives about 10 roentgens of radiation from natural sources.
____ b. Death is certain to occur if a person receives a dose of 100 roentgens of radiation over a short period.
____ c. (both)
____ d. (neither)

20. Which of these statements is true regarding exposure to radiation over a short period of time?

____ a. Exposure to 100 roentgens of radiation will probably cause death.
____ b. Few people get sick if exposed to 600 roentgens or more over their whole body in a short period of time.
____ c. (both)
____ d. (neither)

21. Which of these is true?

____ a. Young people need less protection from nuclear radiation than do older people.
____ b. Older people do not absorb radioactive elements into their bones and internal organs as easily as younger people.
____ c. (both)
____ d. (neither)

22. Which of these is true of radiation sickness?

____ a. Its seriousness depends upon the altitude of the bomb burst.
____ b. Its seriousness depends upon the intensity of the radiation and length of exposure.
____ c. (both)
____ d. (neither)

23. Which of these is true of radiation sickness?

____ a. It is very contagious.
____ b. Its first symptoms usually are nausea, vomiting, and weakness.
____ c. (both)
____ d. (neither)

24. Which of these describes a ratemeter?

____ a. It measures the intensity of radiation at a specific time.
____ b. It indicates total roentgens.
____ c. (both)
____ d. (neither)

25. Which of these describes a dosimeter?

____ a. It is a piece of equipment used to measure radiation.
____ b. It indicates the total amount of radiation a person has been exposed to.
____ c. (both)
____ d. (neither)

26. Which of these is true regarding special clothing and medicines as protection from radiation?

____ a. Certain types of practical protective clothing can be worn by most people to prevent radiation damage.
____ b. Radiation pills have been developed that protect people from the effects of fallout radiation.
____ c. (both)
____ d. (neither)

27. Which of these choices correctly matches two radiation-measuring instruments with their descriptions?

1) ratemeter
2) dosimeter

a. Measures the direction the radiation is coming from
b. Measures the total amount of radiation a person has been exposed to
c. Measures the intensity of radiation

____ a. 1) a, 2) b
____ b. 1) c, 2) b
____ c. 1) b, 2) c
____ d. (none of these)

28. Which of these correctly lists the four measures of protection from fallout?

____ a. Space, shielding, time, and detection
____ b. Distance, detection, time, and decontamination
____ c. Distance, shielding, time, and decontamination
____ d. (none of these)

29. Which of these are methods of decontaminating yourself before entering a shelter for a long stay?

____ a. Brushing and shaking your clothes, discarding those that are heavily contaminated
____ b. Spraying yourself with antiradiation fluid
____ c. (both)
____ d. (neither)

30. It is anticipated that an enemy air attack will be first detected by:

____ a. OCD (Office of Civil Defense).
____ b. radar stations.
____ c. NORAD (North American Air Defense Command).
____ d. (none of these)

31. Which of these correctly describes the Civil Defense warning signals?

____ a. The ATTACK signal is a steady blast of 3 to 5 minutes. The ALERT signal is a steady blast of more than 5 minutes.
____ b. The ATTACK signal is a wavering tone or a series of short blasts for 3 to 5 minutes. The ALERT signal is a steady tone or blast for 3 to 5 minutes.
____ c. The ATTACK signal is a wailing tone for more than 5 minutes. The ALERT signal is a series of short blasts for 3 minutes.
____ d. (none of these)

32. Which is correct?

____ a. The ALERT signal means "Listen for emergency information." You should turn on your radio and get ready to take cover.
____ b. The ATTACK signal means that an attack has been detected. You should take cover immediately.
____ c. (both)
____ d. (neither)

33. Which of these is the correct description of how EBS (Emergency Broadcast System) operates?

____ a. At least one station in an area is authorized to remain on the air and transmit official information and instructions.
____ b. Everyone is instructed to tune to NORAD for emergency instructions.
____ c. All local stations shut down.
____ d. (none of these)

34. Besides nuclear attack, other disasters that threaten the country and require emergency planning are:

____ a. hurricanes and tornadoes.
____ b. floods and fires.
____ c. (both)
____ d. (neither)

35. What length of time is recommended for planning shelter occupancy?

____ a. one week
____ b. two weeks
____ c. three weeks
____ d. (none of these)

36. Fallout is most dangerous:

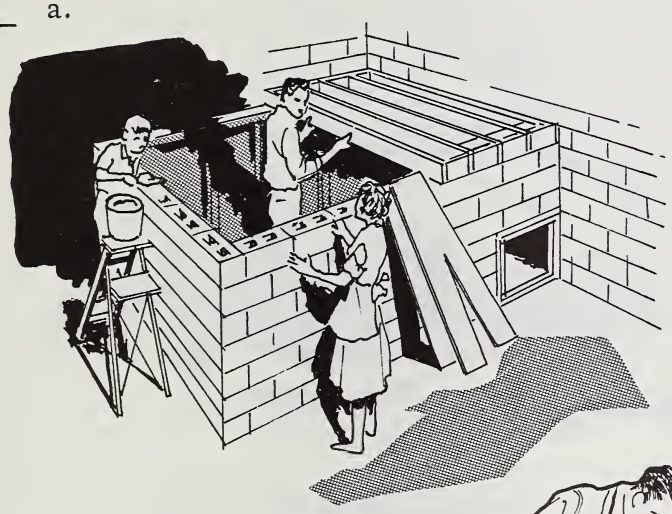
____ a. in the first two days after the explosion.
____ b. in the first two weeks after the explosion.
____ c. after two weeks.
____ d. (none of these)

37. The safest place for a shelter in a home is:

____ a. on the roof.
____ b. on the first floor.
____ c. in the basement.
____ d. in the attic.

38. Which shows a permanent shelter that can be built with about $150 worth of materials or less?

____ a.



____ b.

____ c. (both)
____ d. (neither)

39. Which correctly describes three of the right guidelines for improvising blast protection?

____ a. 1) Don't look toward the flash.
2) Lie flat on your back with your hands at your sides.
3) If you are outside, seek the highest piece of ground and lie down on it.

____ b. 1) Don't look toward the flash.
2) Lie down on your side and curl up. Put your hands over the back of your neck and tuck your knees up against your chest.
3) If you are outside, seek the lowest, most protected spot, and lie down in it in a curled-up position.

____ c. 1) Look toward the flash, but cover your eyes.
2) Lie curled up on your side with your hands over your face.
3) If you are outside, stand in the shadow of a tree. Do not get into any ditches or culverts.

____ d. (none of these)

40. Which man has taken a good position for outside blast protection?

____ a.

____ b.

____ c. (both)

____ d. (neither)

41. Which correctly describes three of the six guidelines for improvising fallout protection?

____ a. 1) A basement is better than aboveground floors in a home.
2) A corner of a basement is better than the center.
3) On aboveground floors, improvise shelter away from outside walls.

____ b. 1) When improvising shelter, keep it small. Concentrate the shielding material around and above you.
2) Stay away from windows and outside doorways.
3) If caught in the open, try to get to some substantial structure, such as a large building, tunnel, or cave. If none of these are available, look for a culvert, underpass, or ditch. Get into anything that will get you below ground level.

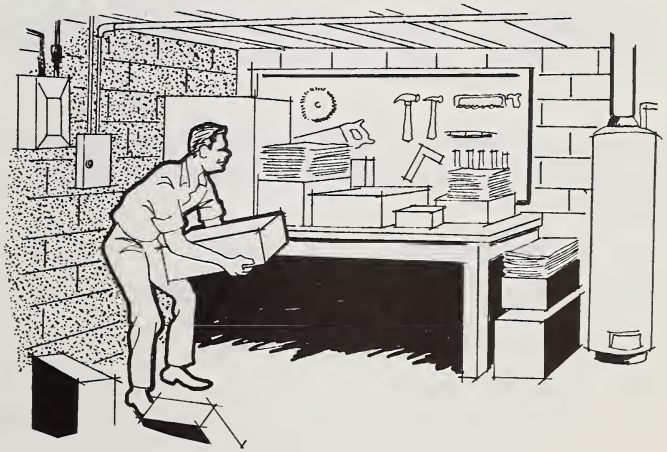
____ c. (both)

____ d. (neither)

42. Which shows a good example of <u>improvising temporary</u> fallout protection inside a home?

____ a.

____ b.



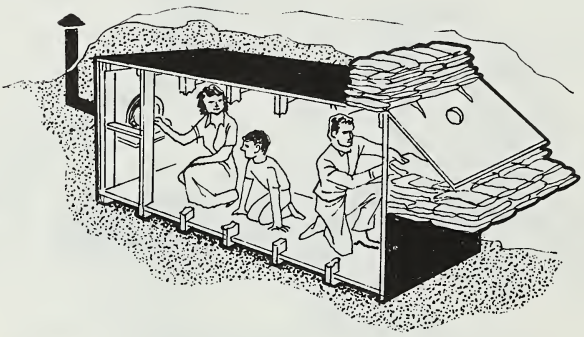
____ c. (both)

____ d. (neither)

43. Which figure illustrates a good example of improvising temporary outside fallout protection?

____ a.

____ b.



____ c. (both)
____ d. (neither)

44. Three things necessary to sustain life in a shelter are FOOD, WATER, and VENTILATION. Which choice lists these necessities in the order of their importance?

____ a. 1) ventilation 2) food 3) water
____ b. 1) water 2) ventilation 3) food
____ c. 1) ventilation 2) water 3) food
____ d. (none of these)

45. Which piece of ventilation equipment is recommended for a home shelter?

____ a. An electric air blower and exhaust system
____ b. Electric fans
____ c. A hand-operated air blower
____ d. (all of these)

46. In stocking a shelter with vital necessities, how much water is recommended for each person per day?

____ a. one quart
____ b. one gallon
____ c. one bucket
____ d. (none of these)

47. Which of these should you follow in stocking a supply of food for your shelter?

____ a. Plan on enough food for two weeks.
____ b. Choose new kinds of food for variety.
____ c. Always use large size cans and packages.
____ d. (all of these)

48. Which of these are necessary items for proper sewage and garbage disposal in a shelter?

____ a. Metal container with cover and plastic bags for toilet use
____ b. Garbage cans with covers for storage
____ c. (both)
____ d. (neither)

49. Which is true?

____ a. A first aid kit and instruction booklet belong in your shelter.
____ b. Sanitation is only a matter of comfort in a shelter and not too important.
____ c. (both)
____ d. (neither)

50. The control of insects, mice, and rats is very important in a shelter. Which is true regarding this necessity?

____ a. Shelters should be painted or sprayed with a five-percent solution of DDT or other insecticides before occupancy.
____ b. Supplies necessary after occupancy include screening material, fly swatters, and mouse and rat traps.
____ c. (both)
____ d. (neither)

51. Which list contains items that are considered the most essential shelter supplies?

____ a. Blankets, matches, pliers, saw, and eating utensils
____ b. First aid kit, radio, water, radiation meters, and flashlight
____ c. (both)
____ d. (neither)

52. Fallout shelters or their supplies can be used in times of other emergencies. Which of these lists these emergencies?

____ a. Fires and floods
____ b. Hurricanes and tornadoes
____ c. (both)
____ d. (neither)

53. Which is true about fallout shelters?

____ a. They should not be used for anything else except protection from fallout, since you never know when a nuclear attack may come.
____ b. They can be used for just about anything that a person desires, from an extra room when needed to a safe place for valuables.
____ c. They should be boarded up when not in use.
____ d. (none of these)

54. Which of these applies to rural survival?

____ a. People in rural areas must provide most of their own protection.
____ b. Warning of an attack might often be late in coming because of the distance from community centers.
____ c. (both)
____ d. (neither)

55. Which of these is suggested as the best method for rural residents to receive warning of attack or other emergencies?

____ a. Short-wave radio sets
____ b. Remote television units
____ c. Standard AM radios
____ d. (none of these)

56. Why is rural survival so essential to the welfare of our country?

____ a. Rural residents usually receive word of an attack before city dwellers, and they have the responsibility of passing it on.
____ b. After an attack, food production must be resumed and our forests protected from fire.
____ c. The jobs of rural residents are more vital to the nation than the jobs of city residents.
____ d. (none of these)

57. What Federal agency gives training and guidance to rural residents and workers in what to do during emergency conditions?

____ a. U.S. Department of Agriculture
____ b. U.S. Department of Defense
____ c. (both)
____ d. (neither)

58. Which of these items of emergency equipment is vital to survival in most rural areas?

____ a. fallout clothing
____ b. electric motor
____ c. electric generator
____ d. (none of these)

59. Which is true concerning rural workers and their need for radiation-measuring instruments?

____ a. The need is greater than it is for city workers since rural workers often have vital jobs outside the shelters.
____ b. The need is not as important as it is for city workers since rural workers have less to do after an attack.
____ c. The need for city workers is greater because rural workers do not usually receive much radiation.
____ d. (none of these)

60. Which is true concerning protection of animals in rural areas?

____ a. Barns and sheds provide some protection for large numbers of animals.
____ b. All useful animals must be protected to aid in human recovery after an attack.
____ c. (both)
____ d. (neither)

61. Feed and water must be provided for all animals that are put into shelters. Which is true of these two necessities?

____ a. Hay, silage, grain, and concentrates stored before an attack would be fairly free of fallout and could be used.
____ b. Water from open ponds or lakes should be used before well water.
____ c. (both)
____ d. (neither)

62. Which of these is an important duty in rural areas following a nuclear attack?

____ a. fire fighting
____ b. restoring communications
____ c. food control
____ d. (all of these)

63. Which of these Federal agencies helps rural areas set up a rural fire defense program?

____ a. Office of Civil Defense
____ b. Forest Service
____ c. EBS
____ d. (none of these)

64. Read the following list.

1) Check electrical wiring.
2) Establish a water supply.
3) Provide asbestos clothing for family.
4) Check heating units.
5) Provide radiation-measuring instruments.
6) Practice fire-safe housekeeping.

Which of the following choices correctly identifies the steps of fire prevention and defense from the list above?

____ a. 1, 2, 4, 6
____ b. 2, 3, 5, 6
____ c. 3, 5, 6
____ d. (none of these)

65. Read the following list.

1) dirt
2) water
3) air
4) wood
5) fuel
6) heat

Which of the following choices correctly identifies the three necessary elements of a fire from the list above?

____ a. 1, 2, 5
____ b. 2, 4, 6
____ c. 3, 5, 6
____ d. (none of these)

66. Which correctly lists the four steps to follow in preparing for a flood?

____ a. 1) Pack dishes, canned goods, and household supplies in baskets and other containers. Then store on top floor.
2) Connect electrical appliances and motors.
3) Turn off gas appliances.
4) Enter your shelter with enough food for two weeks.

____ b. 1) Pack dishes, canned goods, and household supplies in baskets and other containers. Then store on top floor.
2) Disconnect electrical appliances and motors.
3) Turn off gas appliances.
4) Leave early. Take a supply of food and water from your shelter stock.

____ c. (both)

____ d. (neither)

67. There are five steps to follow in preparing for a hurricane. Two of them are: 1) Park car in garage or away from trees and poles, and 2) Take porch furniture, garden tools, and garbage cans inside, or lash them down securely outside. From this list, which are the other three?

1) Store a supply of safe drinking water.
2) Cut a fire lane around small woodlands.
3) Cut off electricity and gas.
4) Have heavy equipment available.
5) Close and board up all windows except one or two on sides of house away from path of storm.

____ a. 1, 3, 5
____ b. 3, 4, 5
____ c. 1, 4, 5
____ d. (none of these)

68. Which correctly describes actions to take to prepare for a tornado?

____ a. In buildings: Sit against outside walls on upper floors.
In schools: If there is no basement, sit against outside walls on upper floors.

____ b. In the home: Go to your shelter or southwest corner of basement. If you have no basement or storm cellar, go to a cave, ravine, or ditch.
In open country: Move at right angles to the tornado's path. Lie flat in the nearest depression such as a ditch or ravine.

____ c. (both)

____ d. (neither)

69. Which is correct?

____ a. People in rural areas must go to the nearest hospital for training in first aid.
____ b. Training in first aid is available in nearly every community.
____ c. (both)
____ d. (neither)

70. Medical Self-Help and Red Cross First Aid Training are:

____ a. training courses in first aid.
____ b. books on family health and first aid.
____ c. available only to members of the Red Cross.
____ d. (none of these)

71. After a nuclear attack, do not leave your shelter and expose yourself to radiation unless:

____ a. it is necessary for your survival or the survival of others.
____ b. you need to obtain a greater variety of food.
____ c. (both)
____ d. (neither)

72. Which of these situations may justify leaving a shelter and exposing yourself for a short time to radiation?

____ a. There is a fire in the shelter.
____ b. A need for supplies necessary to sustain life.
____ c. There is a medical emergency.
____ d. (all of these)

73. If you are in a home shelter and have a ratemeter:

____ a. go to your local school, or other designated gathering place and start decontamination.
____ b. wait until the radiation falls to a safe level before going outside.
____ c. wait until advised to leave by local authorities.
____ d. (none of these)

74. If you do not have a ratemeter:

____ a. stay in your shelter until you are advised to leave by local authorities.
____ b. go outside and check the radiation intensity with your dosimeter.
____ c. wait until the second day before leaving.
____ d. (none of these)

75. When can community decontamination usually be started?

____ a. During the second day after attack
____ b. As soon as radiation is at a safe level
____ c. Not until after two months
____ d. (none of these)

76. When working in contaminated areas, you are likely to pick up fallout particles:

____ a. in your hair.
____ b. on your clothes.
____ c. on your shoes.
____ d. (all of these)

77. The best way to complete the job of recovering from a nuclear attack is through:

____ a. community action.
____ b. individual action.
____ c. Federal action.
____ d. (none of these)

78. The first job in recovery is:

____ a. Repair all living quarters in the community.
____ b. Clean up pre-selected areas to make them safe for living and working outside of shelters.
____ c. Restore communications with other communities.
____ d. (none of these)

79. Which is true of decontamination procedures?

____ a. Roofs can be decontaminated with hoses.
____ b. Unpaved areas can be decontaminated by scraping off or by plowing under a thin top layer of soil.
____ c. (both)
____ d. (neither)

80. Animals exposed to fallout:

____ a. can be washed or brushed to remove fallout particles.
____ b. will have to be killed since there is no way to rid them of fallout particles.
____ c. will be unsafe to keep around no matter what is done to clean them off.
____ d. (none of these)

81. Which of these is true of farm animals as a source of food during recovery?

____ a. Chickens and eggs that have been under cover will be an important food source.
____ b. Milk from cows that have grazed on contaminated pastures will be radioactive and should never be used.
____ c. (both)
____ d. (neither)

82. After a nuclear attack:

____ a. food stored indoors is usually safe to eat.
____ b. be sure to eat all perishable foods first, then the canned foods.
____ c. (both)
____ d. (neither)

83. Which is true of food after a nuclear attack?

____ a. If fruits and vegetables have been exposed to fallout, wipe, wash, and peel them before eating.
____ b. Throw out canned foods if bubbles appear in the juices, even though they may smell all right.
____ c. (both)
____ d. (neither)

84. Which is true regarding use of water from open sources such as lakes or reservoirs after an attack?

____ a. Water from these sources can always be used without purification.
____ b. Radiation itself does not affect water.
____ c. (both)
____ d. (neither)

85. Which is true?

____ a. The addition of iodine to water reduces radioactivity.
____ b. A simple filtering process with paper or cloth will clear water of radioactive particles enough to make it drinkable.
____ c. (both)
____ d. (neither)

NOW TURN THE PAGE AND READ THE
INSTRUCTIONS FOR SELF-SCORING

SCORING PROCEDURES

Answer Page

Tear this page out and use it to score your answers. Any answer you made that does not agree with the answers below is wrong.

PUT A CHECK MARK ON ALL WRONG ANSWERS

DO NOT CHANGE ANY OF YOUR ANSWERS

After you have marked your answers, follow ONE of the three procedures at the bottom of this page. Now mark your answers using this key:

1. a	17. d	33. a	49. a	65. c	81. a
2. b	18. b	34. c	50. c	66. b	82. c
3. a	19. a	35. b	51. b	67. a	83. c
4. c	20. d	36. a	52. c	68. b	84. b
5. c	21. b	37. c	53. b	69. b	85. b
6. a	22. b	38. a	54. c	70. a	
7. b	23. b	39. b	55. c	71. a	
8. b	24. a	40. a	56. b	72. d	
9. a	25. c	41. c	57. a	73. b	
10. c	26. d	42. b	58. c	74. a	
11. c	27. b	43. a	59. a	75. b	
12. a	28. c	44. c	60. c	76. d	
13. b	29. a	45. c	61. a	77. a	
14. a	30. b	46. b	62. d	78. b	
15. a	31. b	47. a	63. b	79. c	
16. b	32. c	48. c	64. a	80. a	

---

1) IF ALL YOUR ANSWERS ARE CORRECT — Congratulations! You know all the information contained in the course and are well-informed on rural personal and family survival. You do not need to take this course.

2) IF YOU MISSED 10 ANSWERS OR LESS — Turn to Part Three, Progressive Referral Questions, and follow the instructions.

3) IF YOU MISSED MORE THAN 10 ANSWERS — Turn to Part Two, Programed Textbook, and begin the course.

PART TWO
PROGRAMED TEXTBOOK

OVERVIEW

Before you read this overview, take the Pre-Test, page 4 of Part 1.

This course presents instruction that will help you protect yourself and others in a time of emergency. Although most of the information deals with what to do in case of NUCLEAR ATTACK, the instruction also covers emergencies such as fire, flood, hurricanes, and tornadoes. The course covers the major points presented in the June, 1966 issue of the Civil Defense manual, Personal and Family Survival. Emphasis in this course is on the problems of survival in rural areas.

The lessons are self-instructional. You can proceed without an instructor and work at your own rate of speed.

The course is divided into five lessons, or units. Each unit is divided into three sections:

1. Information Section. This section contains a summary of the material in the unit. It includes panels, charts, and diagrams. When you have read the material, you will be directed to the teaching section.

2. Teaching Section. The teaching section is a series of short steps covering the material presented in the information section. Each step asks you to choose an answer to a question about the material you have studied. You may be referred to the summaries, figures, charts, or diagrams as you work through the teaching section.

When you have completed the teaching section, you will be directed to the review section.

3. Review Section. The review section consists of questions that cover the material in the unit, and a list of the correct answers with references to the places in the course where the material is covered. Instructions for working this section are found in Unit One.

NOW READ THE INSTRUCTIONS ON THE FOLLOWING PAGE

SUPPLEMENTARY MATERIALS

Be sure to read the OVERVIEW on page i before reading these instructions.

Following Unit Five of this book you will find 10 pages of "tear-outs." Use these as reference material while working the course. The tear-outs contain the following information:

1) Guide for reserve food supply,
2) Shelter supplies,
3) First aid supplies,
4) Points to remember when improvising fallout protection,
5) An outline for family emergency planning,
6) Ten steps toward fire prevention and defense,
7) How to stop a small fire, and
8) Disaster preparation.

Each tear-out is identified at the bottom of the page by a reference number. For example, SUGGESTIONS FOR SHELTER BASIC FOOD SUPPLY is identified as "Tear-Out 1." Notice that "Tear-Out 5," OUTLINE FOR FAMILY EMERGENCY PLANNING, has three pages.

The tear-outs are designed to be torn out along the left-hand margin. Remove all of them before you start the course. Keep them readily available and when you complete all the units, display them in an appropriate place in your home or office for future reference.

REMOVE THE TEAR-OUTS AND BEGIN UNIT ONE

UNIT ONE

INTRODUCTION

Before you begin this section, be sure you have read the overview on page i.

Civil Defense. Civil Defense is the protection of the nation's civilians during attack. The Office of Civil Defense (OCD) is the Federal agency which guides the Civil Defense program.

THE BASIC GOAL OF CIVIL DEFENSE IS TO SAVE AS MANY LIVES AS POSSIBLE IN CASE OF NUCLEAR ATTACK ON THE UNITED STATES.

To reach this goal, OCD maintains a program of fallout shelter development. The objective of the fallout shelter program is a shelter space for everyone, within reach, wherever they may be. OCD suggests that both community fallout shelters and home fallout shelters be available.

Community fallout shelters are found throughout the country in office buildings, schools, industrial plants, and other buildings. Each shelter is marked with this yellow and black "Fallout Shelter" sign.

This sign marks all shelters that are open to the public in times of attack.

If you want private protection, you need a home fallout shelter. Home fallout shelters are mainly for people who live in rural or suburban areas. These people may be unable to take advantage of community shelters.

In this course you will learn some of the life-saving steps you can take at home and at your job to protect yourself and others in case of attack. Many of the things you learn will be of use in times of other emergencies, such as FLOODS, FIRES, HURRICANES, and TORNADOES. Fallout shelters, or the supplies from them, can be used in all such disasters.

Terminology. The following is a list of terms and their definitions. All the terms will be used throughout this course.

1. ATOMIC ENERGY — energy released by an atomic reaction, as in the explosion of nuclear weapons.

2. NUCLEAR — refers to atomic energy.

3. NUCLEAR WEAPONS — weapons in which the explosion results from the energy released by atomic reaction.

4. NUCLEAR WARFARE — war in which most of the weapons are of the atomic energy class.

5. A-BOMB and H-BOMB — abbreviations for the nuclear weapons Atom Bomb and Hydrogen Bomb.

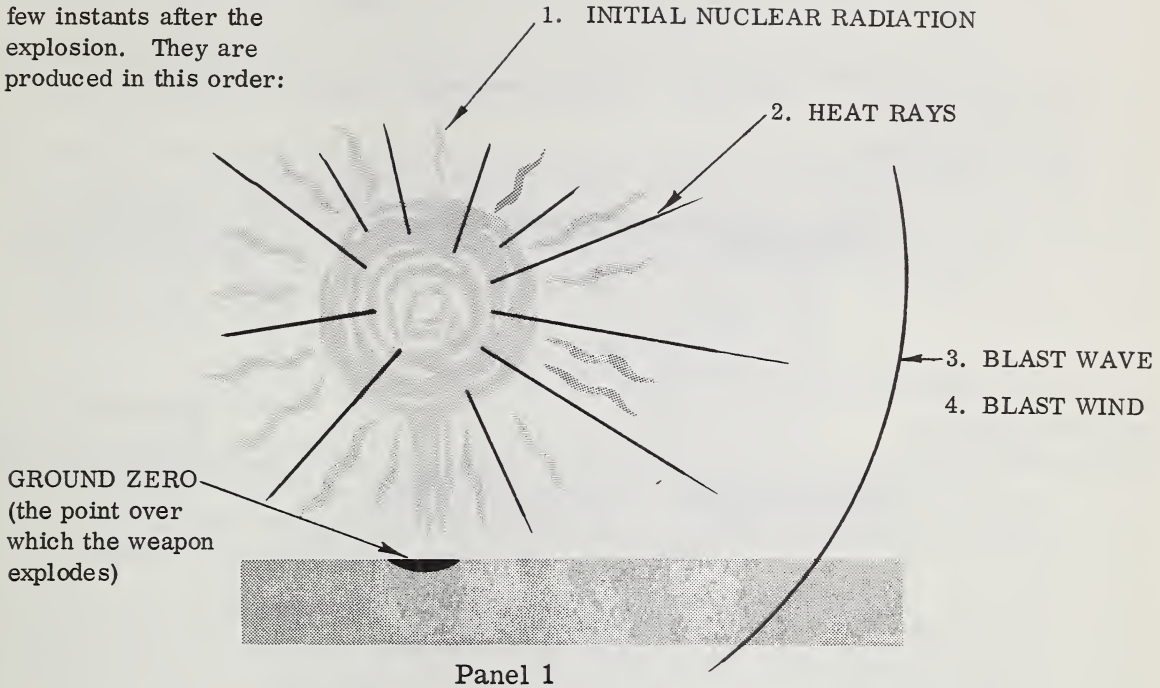
6. 1-KILOTON WEAPON* — The power of nuclear weapons is measured by the amount of TNT explosive it takes to do as much damage as the nuclear weapon. A 1-kiloton weapon would have the same ability to destroy as one thousand tons of TNT. (Kilo means thousand.)

7. 1-MEGATON WEAPON — a nuclear weapon with the same ability to destroy as one million tons of TNT. (Mega means million.)

* The power of a nuclear weapon is given in terms of the weight of TNT that would release the same amount of energy when exploded. For example, a 1-kiloton nuclear explosion would release the same energy as the explosion of 1000 tons of TNT.

Read Panel 1 below.

When a nuclear weapon explodes, four things are produced within the first few instants after the explosion. They are produced in this order:



Panel 1

Refer to Panel 1 above as you read terms 8 through 12.

8. NUCLEAR RADIATION — invisible rays of energy that cannot be felt but can be harmful to the human body.

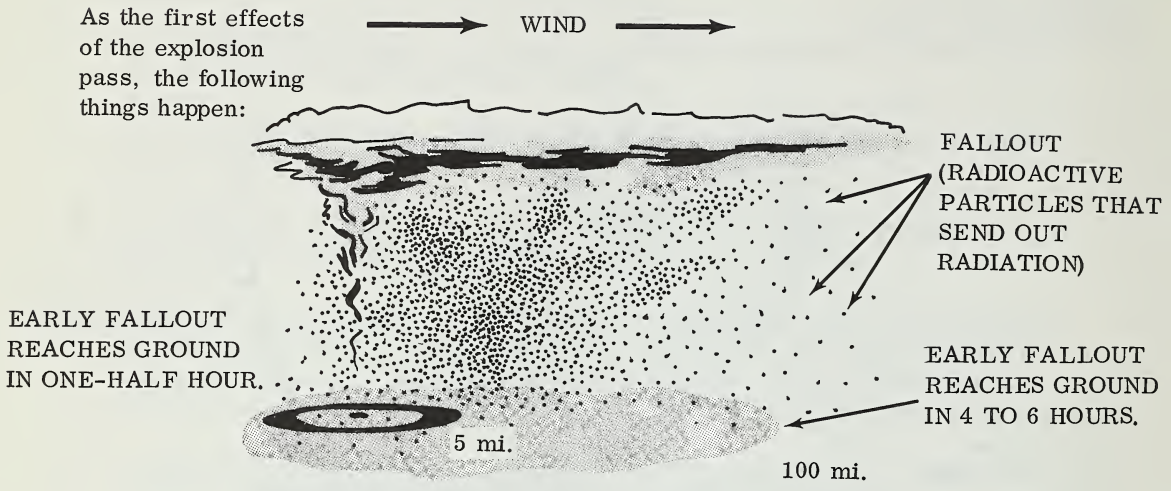
9. INITIAL NUCLEAR RADIATION (wavy lines) — the burst of nuclear radiation that is sent out about one minute after the explosion. It is the first thing to occur after the explosion.

10. HEAT RAYS (straight lines) — the rays of heat that can kill unprotected people up to 10 miles away and may start fires even beyond that point. This comes with the initial radiation.

11. BLAST WAVE (solid curved line) — a sudden strong push of air that is made by the explosion. It moves at more than 2,000 miles per hour at first, but slows down rapidly as it moves away.

12. BLAST WIND — the rush of air which travels behind the blast wave. It may be many times stronger than hurricane winds.

Read Panel 2 below.



Panel 2

Refer to Panel 2 as you read terms and definitions 13 through 17.

13. RADIOACTIVITY — sending out radiation. When something is radioactive, it is sending out rays of energy.

14. FALLOUT — the radioactive material from a nuclear explosion that falls back to earth in particles, or as a dust. Sometimes it is so fine that it is invisible to the naked eye. Often it can be seen. Any object that it falls on is exposed to the rays of harmful energy that it sends out.

15. FALLOUT RADIATION — the radiation sent out by fallout particles. Each particle gives off radiation as though it were a tiny X-ray machine.

16. EARLY FALLOUT — the radioactive particles that fall back to earth within 24 hours after a nuclear explosion.

17. DELAYED FALLOUT — the lighter radioactive particles that fall back to earth more slowly than early fallout. It often takes several months for delayed fallout to reach the earth.

18. CONTAMINATION — the deposit of radioactive material on areas, objects, and people following a nuclear explosion.

19. DECONTAMINATION — the process of getting rid of radioactive particles by washing, cleaning, and so forth.

20. RADIATION SICKNESS — the sickness that people may get after exposure to radiation. After the human body has absorbed certain amounts of radiation, symptoms such as stomach upset, vomiting, and weakness appear. No matter how severe it may be, RADIATION SICKNESS IS NOT CONTAGIOUS OR INFECTIOUS. No one can "catch it" from anyone else.

21. ROENTGEN (RENT´- GEN) — a unit for measuring the amount and intensity of radiation.

22. RADIOACTIVE DECAY — decrease in the radioactivity of material as time passes. The more time that passes, the weaker radiation becomes. Its most harmful effects are right after the explosion. From this time on, the radioactivity declines in intensity, or decays.

23. FALLOUT SHELTER — any type of structure that provides adequate protection from fallout. The type most recommended for rural areas is UNDERGROUND SHELTER. The nation's fallout shelter program is one of the most important jobs of the Office of Civil Defense. The Federal Office of Civil Defense provides the guidance. The State, city, and county organizations assist with the program.

TURN TO THE FOLLOWING PAGE AND BEGIN
THE TEACHING SECTION

B. TEACHING SECTION

1. Each step in the Teaching Section is called a FRAME. 3

Each frame asks you for an ANSWER. For example:

Washington, D.C., is the capital of the United _____.

The ANSWER is "States."
WRITE YOUR ANSWER IN THE BLANK. Then LOOK UP HERE.
The [3] tells you to check your answer in box [3] BELOW.

2. The first President of the United States was George _____. 4

WRITE YOUR ANSWER IN THE BLANK. Then look UP here to find where you check your answer BELOW.

3. George Washington was the first _____ of the United States. 2

WRITE YOUR ANSWER. Then look UP to find where you check your answer BELOW.

4. Sometimes the answer is two words. 1

Washington, D.C., is the capital of the _____ _____.

WRITE YOUR ANSWER FIRST. Then check your answer.

1	2	3	4
United States	President	States	Washington

5. In order to answer a frame, put a CHECK MARK on the choice you think is correct, like this:

4

A dime is worth:

two nickels. ✓	five pennies.

MARK your answer first. Then look to see if you are correct.

6. Try this one.

2

A quarter is worth:

five dimes.	five nickels.

7. Sometimes the choice on the LEFT is correct.
Sometimes the choice on the RIGHT is correct.
In some frames BOTH answers are correct. If both answers are correct, mark a "B" on the frame, like this:

3

A dollar is worth:

ten dimes.	B four quarters.

8. In some frames NEITHER answer is correct. If neither answer is correct, mark "N" on the frame, like this:

1

A quarter is worth:

forty cents.	N fifty cents.

1	2	3	4
NEITHER answer is correct.	This means the choice on the RIGHT is correct.	BOTH answers are correct.	This means the choice on the LEFT is correct.

9. Civil means of or concerning the community of citizens. Civil Defense can best be described as:

3

the action that citizens take to protect the community.	protection of the community from citizens.

10. Civil Defense can be described as the action that citizens take to protect the community. You can guess that the basic goal of Civil Defense in case of a nuclear attack would be to:

4

wage a counterattack.	save as many lives as possible.

11. In the United States a program of fallout shelter development has been followed in an effort to meet the basic goal of Civil Defense. In the United States, the development of fallout shelters is:

2

an effort to save as many lives as possible.	a program to provide protection for soldiers only.

12. Which is correct?

1

A program of fallout shelter development has been followed in the United States in order to provide adequate warning in case of attack.	The basic goal of Civil Defense is to save as many lives as possible.

1	2	3	4
☐☑	☑☐	☑☐	☐☑

13. Which of these programs has the United States followed in an effort to meet the basic goal of Civil Defense? 4

A program of fallout shelter development	A program of counter-attack

14. Which of these is the basic goal of Civil Defense? 2

A program of fallout shelter development	To save as many lives as possible in case of a nuclear attack

15. The main objective of the fallout shelter program is to provide shelter space within reach, for everyone, wherever they may be. You can see that in order to meet its objective, the fallout shelter program must provide shelter for people who live in: 3

urban (city) areas.	rural (country) areas.

16. In order to meet its main objective, the fallout shelter program must provide shelter space within reach of everyone. This indicates that fallout shelters should be: 1

difficult to find.	found in all areas of the country.

1	2	3	4
☐ ☑	☐ ☑	BOTH	☑ ☐

17. Which of these describes the objectives of the fallout shelter program? 2

Shelter space within reach	Shelter space for everyone, wherever they may be

18. Providing shelter space within reach, for everyone, wherever they may be is the main objective of: 4

citizens in rural areas only.	the fallout shelter program.

19. Match each numbered item with the lettered item that best describes it. Write the letter of the description in the blank space following each numbered item. 1

1) Civil Defense _____
2) Fallout shelter program _____

a. Has as its main objective shelter space within reach, for everyone, wherever they may be
b. Has as its basic goal a series of counterattacks
c. Has as a basic goal saving as many lives as possible

1	2	3	4
1) c 2) a	BOTH	☐☑	☐☑

20. In order to meet the main objective of the fallout shelter program, the office of Civil Defense suggests that shelters be provided for country and city residents.
Which of these shelters might serve this purpose?

2

Home shelters	Community shelters

21. A community shelter often provides protection for a large number of people.
A community shelter would most generally be needed in the:

4

city.	country.

22. A home shelter is one that most often provides immediate protection for the family.
A home shelter would most generally be needed in:

1

areas where people live at some distance from community shelters.	the country.

23. A community shelter would most generally be needed by _____ residents, while a home shelter would most generally be needed by _____ residents.

3

1	2	3	4
BOTH	BOTH	city country	☑

24. This sign identifies a community fallout shelter. Shelters marked with this sign would be open to the public for protection in times of nuclear attack. Which is correct?

3

Shelters marked with this sign would be open to city residents in times of nuclear attack.

Shelters marked with this sign would be open to country residents in times of nuclear attack.

25. Which of these signs identifies a community fallout shelter?

4

26. Which of these signs identifies a community fallout shelter?

1

_____ a. 

_____ c. 

_____ b. 

_____ d. 

1 a

2

3 NEITHER (Neither sign is an official fallout shelter sign.)

4 (Note: The arrows in the black margin are at the bottom of the sign.)

27. Many of the things you learn about protection from nuclear attack can be used for other emergencies. Fallout shelters, or their supplies, can be used for any disaster.
You can see from this that many fallout procedures, shelters, and shelter supplies can be used:

only in case of nuclear attack.	in case of floods, fires, hurricanes, and tornadoes.

1

28. In case of natural disasters such as floods, fires, hurricanes, or tornadoes, you may be able to aid yourself and others by using:

procedures that apply to nuclear attack.	fallout shelters or shelter supplies.

3

29. Energy means power or force. In an atomic reaction, energy is released.
You would be correct if you said that an atomic reaction releases:

power.	force.

2

30. An atomic reaction releases atomic energy.
Atomic energy:

could be referred to as power or force.	is released in all explosions.

4

1	2	3	4
☐☑	BOTH	BOTH	☑☐

31. The power or force released by an atomic reaction is more correctly called:

an explosion.	atomic energy.

1

32. An atomic reaction occurs in the explosion of an atomic bomb. You can see from this that the explosion of an atomic bomb releases:

atomic energy.	TNT.

4

33. Which of these is a correct definition of atomic energy?

Energy released by an atomic reaction, as in the explosion of nuclear weapons.	Energy released from an explosion of TNT.

2

34. Nuclear is another word referring to atomic energy. Therefore, nuclear can also refer to:

an explosion of TNT.	the release of energy from an atomic reaction.

3

1	2	3	4
☐☑	☑☐	☐☑	☑☐

35. Another word for atomic energy is: 2

nuclear energy.	atom.

36. Some modern weapons are called nuclear weapons. 4
You can guess that with nuclear weapons the explosion is:

the result of energy released by atomic reaction.	double that produced by TNT.

37. In modern warfare, some of the weapons are of the atomic energy class. 3
This type of warfare could be described as:

cold warfare.	nuclear warfare.

38. Which of these best defines nuclear weapons? 1

All weapons used in modern warfare	All types of weapons that release atomic energy in their explosions

1	2	3	4
☐☑	☑☐	☐☑	☑☐

39. Which of these correctly defines nuclear warfare? 1

The splitting of atoms	Power or force

40. Match these terms with their definitions. 3

1) ATOMIC ENERGY _____
2) NUCLEAR _____
3) NUCLEAR WEAPONS _____
4) NUCLEAR WARFARE _____

a. Weapons in which the explosion results from energy released by atomic reaction
b. Energy released by an atomic reaction, as in the explosion of an atomic bomb
c. The point on the ground where a nuclear weapon explodes
d. War in which most of the weapons are of the atomic energy class
e. Another word referring to atomic energy

41. "A-Bomb" and "H-Bomb" are abbreviations for nuclear weapons. You know that "A" and "H" bombs: 2

both release energy by atomic reaction.	are associated with nuclear warfare.

1	2	3	4
NEITHER (War in which most of the weapons are of the atomic energy class.)	BOTH	1) b 2) e 3) a 4) d	

42. "A-Bomb" and "H-Bomb" may be called: 3

explosions.	nuclear weapons.

43. The destructive power of nuclear weapons is measured in tons. The number of tons that describes a nuclear weapon is equal to the number of tons of TNT that would release the same amount of energy when exploded as the nuclear weapon. Thus the destructuve power of a 1-ton nuclear weapon would be equal to the destructive power of: 1

1 ton of TNT.	1 pound of TNT.

44. The destructive power of a nuclear weapon is described in terms of the weight of: 2

the atomic weapon.	TNT that it would take to release the same amount of energy.

45. The word kilo means thousand. You can guess that a kiloton is: 4

1 thousand tons.	1 million tons.

1	2	3	4
☑	☑	☑	☑

46. The word mega means million. You can guess that 1 million tons is called a:

3

militon.	megaton.

47. Which is correct?

2

A kiloton is 1 thousand tons.	A megaton is 1 million tons.

48. Which is correct?

4

The number of tons used to describe a nuclear weapon is equal to the number of tons that the bomb weighs.	A 20-kiloton nuclear weapon will release as much energy as 20,000 tons of TNT.

49. Which is correct?

1

A 5-megaton nuclear weapon will cause as much destruction as 5 million tons of TNT.	A 1-megaton nuclear weapon will cause as much destruction as 1 million tons of TNT.

1	2	3	4
BOTH	BOTH	☑	☑

50. Match each numbered item with the lettered item that best describes it. 2

1) Mega _____
2) Kilo _____
3) Destructive power of nuclear weapons _____
4) "A-Bomb" and "H-Bomb" _____

a. To save as many lives as possible in case of nuclear attack
b. Million
c. Described in terms of an equal number of tons of TNT
d. Thousand
e. Abbreviations for nuclear weapons

51. Match each term with the statement that best describes it. 1

1) A-BOMB and H-BOMB _____
2) 1-KILOTON WEAPON _____
3) 1-MEGATON WEAPON _____

a. A nuclear weapon that can destroy as much as 1 thousand tons of TNT
b. A nuclear weapon that can destroy as much as 1 million tons of TNT
c. Abbreviations for what should be called nuclear weapons
d. A nuclear weapon containing 1 thousand tons of nuclear material

52. Refer to Panel 1 and the definitions on page 1-3 while working the next series of frames. 4
Which of these defines ground zero?

_____ a. The point in the air at which a nuclear weapon explodes
_____ b. The point over which a nuclear weapon explodes
_____ c. The release of atomic energy
_____ d. (none of these)

1

1) c
2) a
3) b

2

1) b
2) d
3) c
4) e

3

4

b

53. Refer to Panel 1. When a nuclear weapon explodes in the air or on the ground, the point directly below the explosion is called ground zero. Which is correct?

4

A nuclear weapon exploded in the air has no ground zero.	A nuclear weapon must explode on the ground in order for there to be a ground zero.

54. Which is produced first after a nuclear weapon explosion? (Refer to Panel 1.)

3

Initial radiation and heat	Blast wave and blast wind

55. Nuclear radiation is made up of invisible rays of energy that cannot be felt but can be harmful to the human body. Which describes nuclear radiation? (Refer to Panel 1.)

1

Cannot be seen	Can injure man

56. Initial nuclear radiation refers to the burst of radiation that is sent out about one minute after the explosion. (Refer to Panel 1.) You know that about one minute after the explosion:

2

invisible rays of energy can be felt by man.	rays are produced that cannot be seen but can injure the human body.

1	2	3	4
BOTH	☐☑	☑☐	NEITHER (The point beneath the nuclear explosion is called ground zero.)

57. Refer to Panel 1. The burst of radiation that is sent out about one minute after a nuclear explosion is called:

1

instant radiation.	initial nuclear radiation.

58. Which of these develops at the same time as initial radiation? (Refer to Panel 1.)

2

Blast wave	Blast wind

59. Refer to Panel 1. Which is correct?

4

The heat rays from a large nuclear explosion can kill unprotected people many miles away.	The heat rays are the last thing to be produced by a nuclear explosion.

60. Which of these describes the relationship of the blast wave and blast wind? (Refer to Panel 1.)

3

The blast wave follows the sudden strong push of air that is created by the blast wind.	The blast wave is the sudden strong push of air that is followed by the blast wind.

1	2	3	4
☐☑	NEITHER (Heat develops with the initial radiation. The blast wave and blast wind develop a few instants later.)	☐☑	☑☐

61. Match each term with the correct definition. 2

1) NUCLEAR RADIATION _____	a. The burst of nuclear radiation that is sent out about one minute after the explosion
2) INITIAL NUCLEAR RADIATION _____	b. Another word referring to atomic energy
3) BLAST WAVE _____	c. Follows the strong push of air made by the explosion
4) BLAST WIND _____	d. Invisible rays of energy that cannot be felt but can be harmful to the human body
	e. The sudden strong push of air that is made by the explosion of a nuclear weapon

62. Refer to Panel 2 and the definitions on pages 1-4 and 1-5 while working the next series of frames. 4
Radioactivity is the process of sending out radiation. You know, then, that radioactivity is a process that:

sends out invisible rays.	may produce results that are harmful to man.

63. When something is in the process of sending out radiation, it is said to be radioactive. 3
You can guess that anything that is highly radioactive:

is harmful to man.	sends out few invisible rays of energy.

1	2	3	4
	1) d 2) a 3) e 4) c	☑	BOTH

64. Fallout is the material from a nuclear explosion that sends out invisible rays of energy that are harmful to man. (Refer to Panel 2.) You know then, that fallout is:

4

radioactive.	harmful to man.

65. The material from a nuclear explosion often consists of small particles of matter that have been thrown into the air by the explosion. (Refer to Panel 2.) You know that such particles:

2

are radioactive.	are called fallout.

66. The process of sending out radiation is called _____. When something is in the process of sending out radiation, it is said to be _____. Material thrown into the air by a nuclear explosion is called _____.

1

67. Since radiation consists of rays of harmful energy, and fallout contains particles that are sending out radiation, you can guess that fallout radiation is:

3

the radiation that is found only at ground zero.	the radiation sent out by the fallout particles.

1	2	3	4
radioactivity radioactive fallout	BOTH	☑	BOTH

2

68. Something heavy will fall back to earth quicker than something light. (Refer to Panel 2.)
Which of these statements are correct?

1. Early fallout consists of the heavier radioactive particles that fall back to earth within 24 hours after a nuclear explosion.
2. Early fallout consists of the lighter radioactive particles that fall back to earth sooner than the rest.
3. Delayed fallout consists of the lighter radioactive particles that fall back to earth more slowly than early fallout.
4. Delayed fallout consists of the heavier radioactive particles that fall back to earth more slowly than early fallout.

_____ a. (2 and 3)
_____ b. (1 and 4)
_____ c. (1 and 3)
_____ d. (none of these)

3

69. Match the terms with the correct definitions.

1) RADIOACTIVITY _____
2) FALLOUT _____
3) FALLOUT RADIATION _____
4) EARLY FALLOUT _____
5) DELAYED FALLOUT _____

a. The heavier radioactive particles that fall back to earth within 24 hours after a nuclear explosion.
b. The radiation sent out by fallout particles
c. The process of sending out radiation
d. The process of falling out of the air
e. The lighter radioactive particles that fall back to earth more slowly than early fallout
f. The radioactive material from a nuclear explosion that falls back to earth in particles, or as dust

1	2	3	4
	c. (1 and 3)	1) c, 2) f 3) b, 4) a 5) e	

4

70. The term contamination refers to direct contact with some substance that may be harmful to your health.
You can guess that a person would be contaminated if he came in direct contact with:

water.	radioactive particles from fallout.

1

71. Which of these would be an example of contamination from fallout?

Getting radioactive particles on your body or clothes	Eating food that is covered with radio-active particles

2

72. Getting rid of contamination is called decontamination.
In relation to fallout, you can guess that decontamination means:

removing radio-active particles from food or clothing.	preventing the explosion of a nuclear weapon.

3

73. Removing radioactive particles from a person's body and the things a person comes in contact with is called:

contamination.	fallout radiation.

1	2	3	4
BOTH	☑	NEITHER (decontamina-tion)	☑

3

74. If a person becomes contaminated with radioactive particles and does not get rid of them, he will become sick due to the radiation passing into his body.
You can guess that this sickness is called:

_____ a. fallout sickness.
_____ b. atomic sickness.
_____ c. radiation sickness.
_____ d. (none of these)

4

75. Measles and mumps are contagious diseases. This means they can be caught by someone who comes in contact with another person who has them. Radiation sickness IS NOT contagious.
You can guess, then, that:

_____ a. People with radiation sickness can be helped by others with no danger of the others catching the sickness.
_____ b. People with radiation sickness should be kept away from others for fear of passing the sickness around.
_____ c. People with radiation sickness are contagious.
_____ d. (none of these)

2

76. Radiation sickness is:

the sickness that comes from being close to another person who has radiation sickness.	the sickness that people may get from exposure to radiation.

1	2	3	4
		c	a

77. Which is correct? 1

Decontamination occurs when you come in contact with radioactive particles. Contamination is the process of getting rid of these particles.	Contamination occurs when you come in contact with radioactive particles. Decontamination is the process of getting rid of these particles.

78. Match the following terms with the correct definitions. 3

1) CONTAMINATION _____

2) DECONTAMINATION _____

3) RADIATION SICKNESS _____

a. Coming in contact with radioactive particles
b. May affect people who have been exposed to radiation
c. The process of sending out radiation
d. The process of getting rid of radioactive particles

79. In order to be able to measure how much of something you have, you must decide on a unit of measurement for that something. Pounds and quarts are called units of measurement. The unit of measurement for radiation is called a roentgen (RENT´GEN). Which of these would be a correct measurement of radiation? 2

100 pounds	100 roentgens

1 ☐ ☑

2 ☐ ☑

3

1) a
2) d
3) b

4

80. When something decays it falls apart or reduces in strength. It usually takes a long time for something to decay. Automobiles and buildings decay over a long period of time if they are not taken care of. The radioactivity of material decreases with the passage of time. Radioactivity is greatest right after the explosion. From this time on, it loses its power, or decays. This process is called radioactive decay.
Which is correct? 3

_____ a. The more time that passes, the weaker radiation becomes.
_____ b. Radiation becomes stronger as time goes on.
_____ c. When automobiles or buildings decay, the process is called radioactive decay.
_____ d. (none of these)

81. Which is correct? 4

Radioactive decay refers to the process by which the radioactivity of material decreases as time passes.	Due to radioactive decay, if you stay in a shelter after a nuclear explosion, you will be exposed to less radiation.

82. Any type of structure that provides adequate protection from fallout and its radiation can be called a fallout shelter.
Which is correct? 2

An adequate fallout shelter will prevent fallout from falling.	An adequate fallout shelter will provide protection from blast and heat only.

1	2	3	4
	NEITHER	a	BOTH

83. Match the terms with the correct definitions.

1) ROENTGEN _____

2) RADIOACTIVE DECAY _____

3) FALLOUT SHELTER _____

a. Any type of structure that provides adequate protection from fallout and its radiation
b. A unit measuring amount and intensity of radiation
c. A unit measuring pounds and quarts
d. Radioactivity of material decreasing as time passes

TURN TO THE FOLLOWING PAGE AND BEGIN THE REVIEW SECTION

1	2	3	4
	1) b 2) d 3) a		

C. REVIEW SECTION

Use the same procedures you followed in the Pre-Test Section to answer the following questions.

1. Which of these describes the basic goal of Civil Defense?

____ a. To save as many lives as possible in case of nuclear attack
____ b. To prevent a deliberate nuclear attack on the United States
____ c. (both)
____ d. (neither)

2. How is the Civil Defense goal carried out?

____ a. Through a program of counterattack
____ b. Through a program of fallout shelters
____ c. By teaching civilians how to fight
____ d. (none of these)

3. The main objective of the Civil Defense Fallout Shelter Program is:

____ a. a shelter space for everyone, within reach, wherever they may be.
____ b. early warning.
____ c. (both)
____ d. (neither)

4. The Office of Civil Defense suggests the establishment of fallout shelters in:

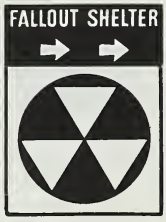
____ a. cities.
____ b. rural areas.
____ c. (both)
____ d. (neither)

5. Which of these signs designates a community fallout shelter?

____ a. 

____ b. 

____ c. 

____ d. 

6. Which is true?

____ a. Many of the things you learn about protection from nuclear attack can also be used in other emergencies, such as floods, fires, hurricanes, and tornadoes.

____ b. The things you learn about protection from nuclear attack are not useful in any other emergencies.

____ c. Fallout shelters should be used only for protection from fallout.

____ d. (none of these)

7. Which of these lists of definitions is correct?

____ a. ATOMIC ENERGY — the fallout released by an explosion of TNT.
NUCLEAR — refers to Civil Defense.
NUCLEAR WEAPONS — weapons in which the explosion results from the energy released by atomic reaction.
NUCLEAR WARFARE — war in which one nation attacks another using only nuclear weapons.

____ b. ATOMIC ENERGY — the energy released by an atomic reaction, as in the explosion of nuclear weapons.
NUCLEAR — refers to atomic energy.
NUCLEAR WEAPONS — weapons in which the explosion results from the energy released by atomic reaction.
NUCLEAR WARFARE — war in which most of the weapons are of the atomic energy class.

____ c. (both)

____ d. (neither)

8. Which of these lists of definitions is correct?

____ a. A-BOMB and H-BOMB — abbreviations for the nuclear weapons atom bomb and hydrogen bomb.
1-KILOTON WEAPON — a nuclear weapon with the same ability to destroy as one million tons of TNT.
1-MEGATON WEAPON — a nuclear weapon with the same ability to destroy as one thousand tons of TNT.

____ b. A-BOMB and H-BOMB — abbreviations for the nuclear weapons atom bomb and hydrogen bomb.
1-KILOTON WEAPON — a nuclear weapon with the same ability to destroy as one thousand tons of TNT.
1-MEGATON WEAPON — a nuclear weapon with the same ability to destroy as one million tons of TNT.

____ c. A-BOMB and H-BOMB — abbreviations for the nuclear weapons atom bomb and hydrogen bomb.
1-KILOTON WEAPON — a one-thousand-ton atomic bomb.
1-MEGATON WEAPON — a one-million-ton atomic bomb.

____ d. (none of these)

9. Which of these lists of definitions is correct?

____ a. GROUND ZERO — the point on the ground over which a nuclear weapon explodes.
NUCLEAR RADIATION — invisible rays of energy that cannot be felt but can be harmful to the human body.
INITIAL NUCLEAR RADIATION — the burst of radiation sent out from a nuclear weapon about one minute after the explosion.

____ b. GROUND ZERO — the point on the ground where the effects of a nuclear explosion are zero, or nothing.
NUCLEAR RADIATION — invisible rays of energy that cannot be felt but can be harmful to the human body.
INITIAL NUCLEAR RADIATION — the burst of radiation sent out from a nuclear weapon several minutes after the explosion.

____ c. GROUND ZERO — the point on the ground over which a nuclear weapon explodes.
NUCLEAR RADIATION — invisible rays of energy that are felt but are not harmful to the human body.
INITIAL NUCLEAR RADIATION — the burst of radiation sent out from a nuclear weapon at the same time as the explosion.

____ d. (none of these)

10. Which of these lists of definitions is correct?

____ a. BLAST WAVE — the sudden strong push of air that is made by a nuclear explosion.
BLAST WIND — the tremendous gust of wind that travels in front of the blast wave.

____ b. BLAST WAVE — the gust of air pressure that follows the blast wind.
BLAST WIND — the rush of air that travels behind the blast wave and may be many times stronger than hurricane winds.

____ c. BLAST WAVE — the sudden strong push of air that is made by a nuclear explosion.
BLAST WIND — the rush of air that travels behind the blast wave and may be many times stronger than hurricane winds.

____ d. (none of these)

11. Which of these lists of definitions is correct?

____ a. RADIOACTIVITY — sending out radiation.
FALLOUT — when something falls out of a cloud.
FALLOUT RADIATION — the radiation sent out by fallout particles.

____ b. RADIOACTIVITY — sending out radio waves.
FALLOUT — radioactive material from a nuclear explosion that falls back to earth in particles, or as a dust.
FALLOUT RADIATION — the radiation sent out by fallout particles.

____ c. RADIOACTIVITY — sending out radiation.
FALLOUT — radioactive material from a nuclear explosion that falls back to earth in particles, or as a dust.
FALLOUT RADIATION — the radiation sent out by fallout particles.

____ d. (none of these)

12. Which of these lists of definitions is correct?

____ a. EARLY FALLOUT — the radioactive particles that fall back to earth within 24 hours after a nuclear explosion.
DELAYED FALLOUT — the lighter radioactive particles that fall back to earth more slowly than early fallout.

____ b. EARLY FALLOUT — the heavy radiation that falls back to earth sooner than the rest.
DELAYED FALLOUT — the lighter radiation that falls back to earth more slowly than heavy radiation.

____ c. EARLY FALLOUT — the radioactive particles that fall back to earth within 24 hours after a nuclear explosion.
DELAYED FALLOUT — the fallout particles that are delayed in arrival due to blast winds.

____ d. (none of these)

13. Which of these lists of definitions is correct?

____ a. CONTAMINATION — the deposit of radioactive material on areas, objects, and people following a nuclear explosion.
DECONTAMINATION — the process of getting rid of radioactive particles.
RADIATION SICKNESS — the contagious sickness that people get from being exposed to radiation.

____ b. CONTAMINATION — the deposit of radioactive material on areas, objects, and people following a nuclear explosion.
DECONTAMINATION — the process of getting rid of radioactive particles.
RADIATION SICKNESS — the sickness that people may get after exposure to radiation.

____ c. (both)

____ d. (neither)

14. Which of these lists is correct?

____ a. FALLOUT SHELTER — any type of structure that provides adequate protection from fallout.
ROENTGEN — a unit for measuring the amount and intensity of radiation.
RADIOACTIVE DECAY — decrease in the radioactivity of material as time passes.

____ b. FALLOUT SHELTER — any type of structure that provides adequate protection from fallout.
ROENTGEN — a unit for measuring blast waves.
RADIOACTIVE DECAY — radiation gaining in power as time passes.

____ c. FALLOUT SHELTER — any type of structure that provides adequate protection from fallout.
ROENTGEN — a unit for measuring heat rays.
RADIOACTIVE DECAY — anything decaying due to radiation.

____ d. (none of these)

NOW TURN TO THE FOLLOWING PAGE
AND CHECK YOUR ANSWERS

REVIEW SECTION ANSWERS

Check each of your answers.

1. a (1-1)
2. b (1-1)
3. a (1-1)
4. c (1-1)
5. c (1-1)
6. a (1-1)
7. b (1-2)
8. b (1-2)
9. a (1-3)
10. c (1-3)
11. c (1-4)
12. a (1-4, 1-5)

(continued on following page)

13. b (1-5)

14. a (1-5)

If you missed a question, refer to the page number that is shown with the correct answer. This reference will tell you why your answer is wrong. For example, the page number shown with the answer to question 1 is 1 - 1 If you selected any choice other than a, turn to page 1-1 and find why a is the correct choice.

WHEN YOU HAVE FINISHED CHECKING YOUR ANSWERS,
TURN TO THE FOLLOWING PAGE AND BEGIN UNIT TWO

UNIT TWO

THE THREAT

MODERN WEAPONS

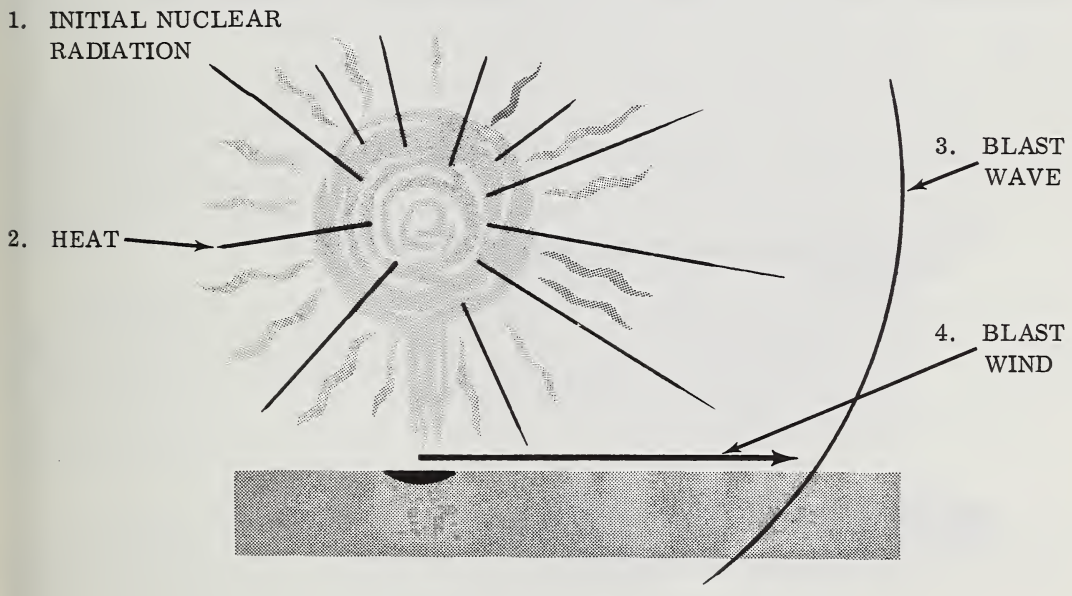
To better understand the reasons for Civil Defense, we first need to take a look at the types of weapons of modern warfare.

Conventional Weapons — weapons that use non-nuclear explosives, such as TNT. These include most of the kinds of weapons used in World War II and the Korean War.

Chemical and Biological Agents — weapons that use chemical or biological agents as the means of affecting damage on people and crops.

Nuclear Weapons — weapons that make use of the principal of atomic reaction in their explosions, and release huge amounts of atomic energy. They produce effects equal to millions of tons of TNT. These weapons, and the radioactive fall-out they produce, are considered the most dangerous to man.

A NUCLEAR EXPLOSION PRODUCES:



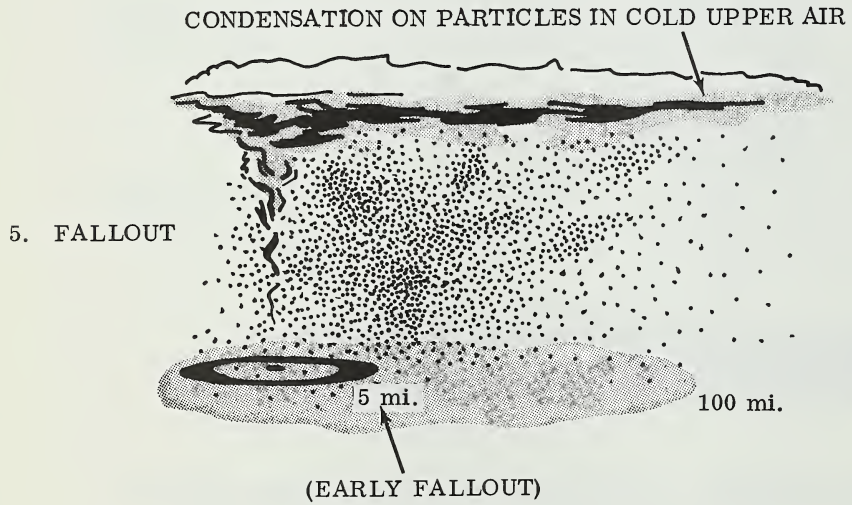
1. Initial Nuclear Radiation. A five-megaton nuclear weapon explodes with a brilliant flash that lasts about a minute. A quick burst of nuclear radiation and heat comes from ground zero, the point of the explosion. The spurt of nuclear radiation (wavy lines extending from the fireball) is called initial nuclear radiation and kills within a mile or two.

2. Heat. The heat rays (straight lines) can kill unprotected people many miles away and may start fires at an even greater distance.

3. Blast Wave. The heat rays and initial radiation are followed by a blast wave which starts at more than 2,000 miles an hour, but loses much of its damaging force by the time it has traveled a distance of 10 miles.

4. Blast Wind. With the blast wave comes a violent wind which picks up loose objects and carries them away from the point of the explosion. In the illustration on page 2-1, the weapon has burst at ground level, leaving a crater about half a mile across and 200 feet deep. Nearly everything within a radius of a mile of ground zero would be destroyed.

5. Fallout. First, the brilliant fireball rises in the sky. It then draws up a vast amount of earth that is melted or vaporized and contaminated by the radioactive residue of the explosion. A little later, this material condenses in the cold upper air. Like rain or snow, it starts falling back to earth. Like ash from a fire, it is heavier than air. It is called fallout because it falls out of the sky, wherever the winds may blow it. BECAUSE OF THE HARMFUL EFFECTS OF RADIATION, FALLOUT IS AN EXTREMELY DANGEROUS PRODUCT OF A NUCLEAR EXPLOSION. About five miles from the explosion, the heavier particles would reach the ground in half an hour. Twenty miles away, people may have nearly an hour to get ready. One hundred miles away the fallout may not start for four to six hours. The early fallout carries the bulk of the radiation danger. It descends in less than 24 hours. The less dangerous lighter particles — delayed fallout — might stay aloft for months.



FACTORS THAT DETERMINE THE EXTENT OF FALLOUT

1. Altitude of the bomb burst
2. Energy yield and design of the bomb
3. Size and weight of the fallout particles
4. Conditions in the upper air—air current, direction and speed of the winds
5. Snow, rain, and hail
6. Type of ground surface — topography

FALLOUT RADIATION

During the average lifetime, every human being receives about 10 roentgens of nuclear radiation from natural sources. In addition, people are exposed to small amounts of radiation in dental and chest X-rays and even from the luminous dials of wrist watches.

When large amounts of radiation are absorbed by the body in short periods of time, sickness and death may result. In general, the effects of radiation stay with people and accumulate or build up over a period of time. Few people get sick who have been exposed to 100 roentgens or less. Exposure of the whole body to more than 300 roentgens over a period of a few days will cause sickness in the form of nausea, and may cause death. Death is fairly certain for most people if they receive a whole-body exposure of 600 roentgens or more over a period of a few days.

Young people might be injured more by nuclear radiation than older people. This is because young people are more apt to absorb radioactive elements into their bones and internal organs than are older people. Since young people are potential parents, they should be protected as much as possible following a nuclear attack. This is done to lessen the possible heredity effects on their descendants resulting from too much exposure to nuclear radiation.

Radiation Sickness. The principal ailment unique to nuclear warfare is radiation sickness. Its seriousness depends on 1) the intensity of the radiation to which a person is exposed, and 2) the length of time he is exposed. The body can take a certain amount of radiation damage and repair it without serious permanent injury. It is only when one gets too much too fast that sickness or possibly death may result.

Radiation sickness is not contagious, regardless of how much exposure the victim has had. It is important to know that many of its symptoms may appear in anyone subjected to anxiety and great stress.

Its first symptoms usually are NAUSEA, VOMITING, DIARRHEA, and GENERAL WEAKNESS.

Radiation Meters. Radiation cannot be detected by any of the five senses. Therefore, each shelter should have the following instruments to detect and measure it:

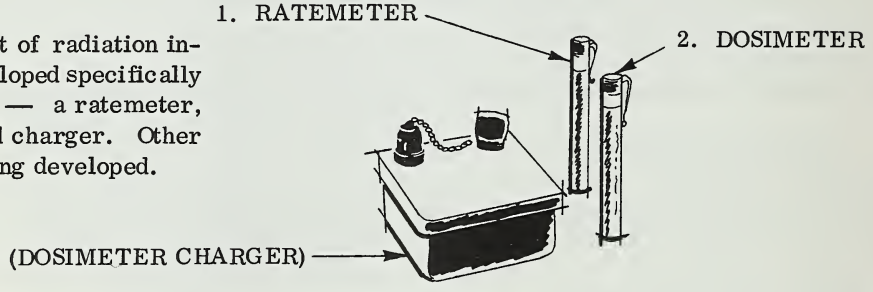
1. ratemeter
2. dosimeter

A ratemeter tells what the intensity of the radiation is. It is similar to a speedometer in a car except that it measures roentgens per hour rather than miles per hour. Thus, from a ratemeter reading made just outside the shelter, you get an indication of whether it is safe to leave the shelter for a brief period.

The dosimeter shows you the total amount of radiation to which you have been exposed during an emergency period. It is similar to a mileage indicator in a car, but it measures total roentgens rather than miles. Carefully study the instructions provided with these instruments by the manufacturer.

(The dosimeter charger is used to recharge the dosimeter.)

At right is a kit of radiation instruments developed specifically for home use — a ratemeter, dosimeter, and charger. Other models are being developed.



Special Clothing Offers Little Protection. Fallout radiation would pass through any type of protective clothing that would be practical to wear. Heavy and dense materials, such as earth and concrete, are needed to stop the highly penetrating fallout rays. Certain types of protective clothing are useful — particularly for emergency workers—in keeping fallout particles off the body, but the wearer will not be protected from the radiation given off by the particles. The worker wears the clothing when in a fallout contaminated area. Then, he discards it or brushes and washes it off thoroughly before entering a non-contaminated area.

Little Hope in Special Medicines. Although many experiments have been made, there is little chance that a pill or any other type of medicine will be developed that can protect people from the effects of fallout radiation.

Fallout Radiation Does Not Make Things Radioactive. Fallout radiation cannot make anything radioactive. Food and water that have been exposed to fallout radiation are contaminated only to the extent that they contain fallout particles.

Fallout can be compared to the dust and dirt that settles on your car as you drive down a dirt road. Some of the dust gets inside and also gets on you. As long as the dust remains on you or your car, you and the car are contaminated. You get contaminated in the same way with fallout as it falls out of the sky. And as long as it stays on you, harmful radiation is passing into your body. But, as in the case of your dusty car, all you have to do to get "clean" is to wash it off.

FALLOUT PROTECTION

Radioactive fallout gives out a highly penetrating ray, like an X-ray. These rays can make you sick, and in the case of continued exposure, cause death.

There are four protective measures:

1. Distance. Fallout arrives sooner and is more intense close to the bomb burst. Your DISTANCE from the explosion is an IMPORTANT SAFETY FACTOR. If local authorities determine that evacuation of your area is practical, you will be told to leave.

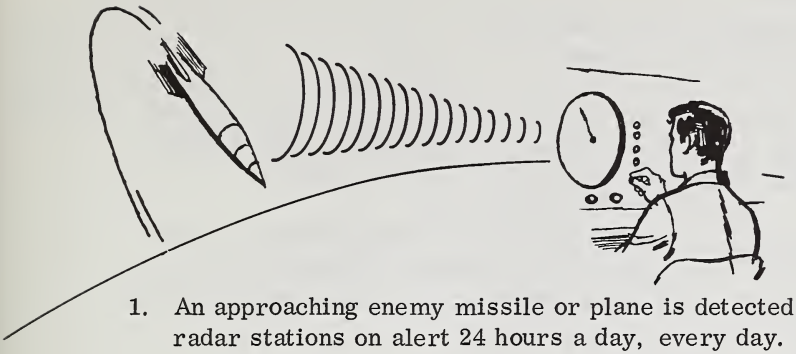
2. Shielding. Fallout radiation can pass through just about any material, but some of it is "absorbed" on the way through. Thus, if enough shielding is put between you and the fallout, the amount of radiation which reaches you will be greatly reduced.

3. Time. Radioactivity decreases as time passes. The more time that passes, the safer a contaminated area becomes. This is known as radioactive decay.

4. Decontamination. Fallout, like dust, can be removed from most surfaces by washing, vacuum cleaning, or plowing under. Before entering a shelter, decontaminate yourself by:

1) brushing and shaking your clothes, discarding those that are heavily contaminated; and
2) washing your hands and face.

HERE'S WHAT WOULD HAPPEN IF AN ENEMY ATTACK WERE LAUNCHED AGAINST OUR CONTINENT:

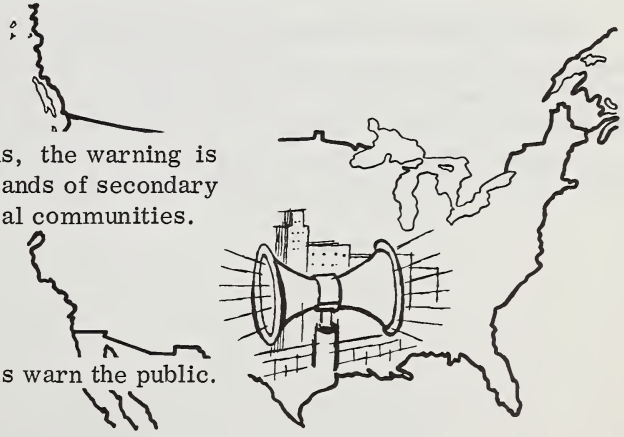


1. An approaching enemy missile or plane is detected by one or more of the radar stations on alert 24 hours a day, every day.

2. Instantly information goes to the North American Air Defense Command (NORAD) and our military forces are alerted to strike back.

3. Warning of attack goes out from the Office of Civil Defense (OCD) Warning Officers over the National Warning System (NAWAS) to 500 warning points at state and local levels.

4. From these locations, the warning is passed down to thousands of secondary warning points in local communities.



5. Local officials warn the public.

Figure 1. The Warning Network

CIVIL DEFENSE WARNING SIGNALS

The Attack Warning Signal

On Sirens: A wavering tone for 3 to 5 minutes.
On Horns: Short blasts for 3 to 5 minutes.

The ATTACK warning signal means: Actual attack against this country has been detected — take protective action immediately! This signal is standard throughout the country.

Action to be taken: Follow the emergency actions established by your State and local government. It may be "go to shelter immediately in accordance with the Community Shelter Plan" or "go to the best available shelter immediately."

The Attention or Alert Signal

On Sirens: A STEADY TONE for 3 to 5 minutes.
On Horns: A STEADY BLAST for 3 to 5 minutes.

The ATTENTION or ALERT signal means: Listen for essential emergency information!

State and local authorities may use this signal for peacetime emergencies other than attack warning.

Action to be taken: Listen to your local or area radio or television station for essential emergency information.

COMMUNICATIONS WITH THE PUBLIC

Getting official information and guidance to the public in times of national emergencies can save millions of lives. The Emergency Broadcast System (EBS) has been set up to provide this aid. It is called out through local AM broadcast stations. At least one station in an area is chosen to stay on the air to transmit official information and instructions in times of emergencies. All other stations shut down. (EBS replaces the older system known as CONELRAD.)

OTHER DISASTERS

NUCLEAR ATTACK is the most dangerous type of emergency requiring emergency planning that faces this country. Such "natural" disasters as floods, fires, hurricanes, and tornadoes also require emergency planning. The protective measures associated with these disasters are discussed later in this course.

TURN TO THE FOLLOWING PAGE AND BEGIN
THE TEACHING SECTION

1. Four types of modern weapons are conventional, chemical, biological, and nuclear. Which of these releases atomic energy?

1

_____ a. conventional
_____ b. chemical
_____ c. biological
_____ d. nuclear

(Don't forget to MARK your answer FIRST; then LOOK to see if you are right. Do not change your answers.)

---

2. The modern weapon that is most dangerous to man is a nuclear weapon. You know that the most dangerous weapon to man:

4

uses TNT in its explosion.	releases atomic energy.

---

3. Weapons that release atomic energy are:

3

the most dangerous weapons to man.	nuclear weapons.

---

4. The modern weapon that is most dangerous to man is a:

2

nuclear weapon.	conventional weapon.

1	2	3	4
d	☑	BOTH	☑

5. The five products of a nuclear weapon explosion are: 4

1) heat and light,
2) initial radiation,
3) blast wave and shock,
4) blast wind, and
5) fallout.

This list contains the characteristics of:

_____ a. all modern weapons.
_____ b. the modern weapon that is most dangerous to man.
_____ c. weapons that use chemical or biological agents.
_____ d. (none of these)

6. Refer to the list of products in frame 5. 3
When a nuclear weapon explodes, the first things given off are initial nuclear radiation and heat. These are followed by a wave of pressure and strong wind. These last two items are called:

_____ a. blast wave and fallout.
_____ b. blast wind and fallout.
_____ c. blast wave and blast wind.
_____ d. (none of these)

7. As a result of a nuclear explosion, radioactive particles fall from the sky and contaminate the surrounding area. You know that this material is called: 1

_____ a. heat.
_____ b. fallout.
_____ c. blast wave.
_____ d. (none of these)

1	2	3	4
b		c	b

8. Which of these types of modern weapons is the one most dangerous to man? 4

_____ a. conventional
_____ b. biological
_____ c. nuclear
_____ d. chemical

9. Which of these lists contains the five products of a nuclear explosion? 3

_____ a. Initial radiation, heat, chemicals, blast wind, and fallout
_____ b. Initial radiation, blast wave, fallout, atomic energy, and wind
_____ c. Blast wave, blast wind, initial energy, conventional energy, and explosion
_____ d. Initial radiation, heat, blast wave, blast wind, and fallout

10. Fallout is the product of a nuclear explosion that is dangerous to man for the longest period of time. You can guess that this is true because: 2

of its radioactivity.	it is the first thing to happen after a nuclear explosion.

11. The radioactive material that is dangerous to man over a period of time: 1

sends out harmful rays of energy.	is fallout.

1	2	3	4
BOTH	☑	d	c

12. The location and spread of contamination in a given area, and the levels of radiation in that area, are influenced by these six factors:
1) Altitude of nuclear explosion
2) Size and weight of particles
3) Energy yield and design of weapon
4) Weather conditions, such as snow, rain, and hail
5) Conditions in upper air—air currents, direction and speed of winds
6) Type of ground surface — topography

2

These six factors affect:

the location where radioactive particles fall.	the amount of radioactive particles that fall in an area.

13. Refer to the list in frame 12.
Which of these would be an example of factor number 2?

1

Air currents carry fallout in different directions.	The heavier the particles the quicker they fall.

14. Refer to the list in frame 12.
Which of these may be an example of factor number 4?

3

Rain at the time of the nuclear explosion may wash some fallout into the soil.	A high altitude nuclear explosion may have fallout over a large area.

1	2	3	4
☐ ☑	BOTH	☑ ☐	

15. You learned earlier in this course that a unit for measuring the amount and intensity of radiation is: 3

_____ a. pound.
_____ b. roentgen.
_____ c. ounce.
_____ d. (none of these)

16. Read this radiation exposure table. 1

PROBABLE EFFECTS OF SHORT-TERM EXPOSURE OF THE WHOLE BODY TO RADIATION

Roentgens	Probable Effect
10	No obvious effects. Average lifetime dosage.
100	Few people get sick who have been exposed to this amount.
300	Sickness and some deaths.
600 and more	Few survivors. Death is fairly certain.

This radiation exposure table shows that:

exposure to 10 roentgens during a lifetime is very dangerous.	exposure to 10, or even 100 roentgens, is not too serious.

17. Refer to the table in frame 16 for the next series of frames. The most dangerous radiation exposure is: 2

below 300 roentgens.	from 300 roentgens and up.

1	2	3	4
☐ ☑	☐ ☑	b	

18. Which of these describes the effects of short-term exposure of the whole body to radiation? 2

Death is fairly certain with an exposure of 700 roentgens or more.	Few people get sick who have been exposed to 300 roentgens.

19. By using the chart in frame 16 you can determine that authorities: 1

do not know how different levels of radiation exposure affect humans.	are fairly certain how different levels of radiation exposure affect humans.

20. You know that the sickness that comes from overexposure to radiation is called: 3

_____ a. contamination.
_____ b. radiation sickness.
_____ c. roentgen sickness.
_____ d. (none of these)

1	2	3	4
☐☑	☑☐	b	

21. The seriousness of radiation sickness depends on two things:
1) the INTENSITY of the radiation a person is exposed to, and
2) the LENGTH OF TIME exposed.
This means that:

the more radiation a person is exposed to, the sicker he becomes.	the longer a person is exposed to radiation, the safer he is.

1

22. The two things that determine the seriousness of radiation sickness are:

the altitude of the bomb burst and the size of the person.	the intensity of the radiation a person is exposed to and the length of time exposed.

2

23. Which is true?

_____ a. The sickness that comes from overexposure to radiation is called radiation sickness.
_____ b. Radiation sickness is more serious as the intensity of radiation and length of time exposed go up.
_____ c. (both)
_____ d. (neither)

4

24. Many sicknesses are CONTAGIOUS. This means they can be passed from one person to another. Radiation sickness is not one of these. When a person has radiation sickness, there is no way another person can catch it from him.
This means:

Everyone should stay away from a person with radiation sickness.	People need have no fear of catching radiation sickness from anyone else.

3

1	2	3	4
☑	☐	☐	c
☐	☑	☑	

25. The first symptoms of radiation sickness usually are nausea, vomiting, and weakness. After a nuclear attack, if people in your shelter were feeling sick at their stomach, vomiting, and feeling weak, which of these might be true?

They may be experiencing radiation sickness.	They may have been exposed to harmful rays of energy.

1

26. Which of these are the first symptoms of radiation sickness?

Bleeding, nausea, and sore eyes	Nausea, vomiting, and weakness

3

27. Which of these describes radiation sickness?

_____ a. Caused by exposure to blast wave and blast wind
_____ b. Contagious
_____ c. Caused by overexposure to radiation
_____ d. (none of these)

4

1	2	3	4
BOTH		☐☑	c

28. Radiation is invisible and cannot be detected without the aid of special instruments. The following radiation-measuring instruments should be included in the list of vital shelter supplies:

1) Ratemeter—measures the intensity of radiation, or how much is present at one time. ROENTGENS PER HOUR
2) Dosimeter—measures the total amount of radiation that a person or group has been exposed to. TOTAL ROENTGENS

Which is correct?

Since radiation is invisible, man cannot detect or measure it without the aid of special instruments.	The two instruments listed above prevent radiation sickness from spreading.

1

29. Refer to the radiation-measuring instruments in frame 28. Which is correct?

The ratemeter is used to measure the total amount of radiation which a person or group of people is exposed to.	The dosimeter is used to measure the intensity of radiation, or how much is present at one time.

2

30. Since these instruments are used to measure radiation, you know they measure:

the blast wind.	invisible rays of energy.

3

1	2	3	4
☑	NEITHER (Just the reverse is true.)	☑	

31. List two instruments used to measure radiation.

3

1) _____

2) _____

32. Fallout radiation will pass through any type of protective clothing that is practical to wear. Such clothing is useful only in keeping fallout particles off the body, not in preventing radiation from entering the body.
This means:

4

Harmful rays of energy will not pass through practical protective clothing.	Practical protective clothing keeps radiation from entering the body.

33. Although many experiments have been made, there is little chance that a pill or any other type of medicine will be developed that can protect people from radiation effects.
In other words:

1

There is little hope in special medicines as protection from the effects of radiation.	At the present time, there are no special medicines to prevent the effects of radiation.

1	2	3	4
BOTH		1) ratemeter 2) dosimeter (Either order is correct.)	NEITHER

34. Which is correct? 3

_____ a. There is no easy-to-wear clothing or special medicine that can prevent radiation from damaging the human body.

_____ b. There are no protective medicines for the effects of radiation, but by wearing dark clothing, a person can be protected.

_____ c. There is no protective clothing for radiation, but by taking certain new medicines, a person can be protected from the effects of radiation.

_____ d. (all of these)

---

35. Which is correct? 1

Radiation is very contagious.	Radiation is measured with a ratemeter and dosimeter.

---

36. Refer to FALLOUT PROTECTION, pages 2-5 and 2-6, while working frames 36 to 40. 4
The four fallout protective measures are:

_____ a. distance, shielding, detection, and time.
_____ b. distance, time, decontamination, and clothing.
_____ c. distance, shielding, time, and decontamination.
_____ d. (none of these)

1	2	3	4
☐☑		a	c

37. Which of these is true regarding fallout protective measures? 2

Distance—the farther away you are from the bomb burst, the safer you are.
Shielding—the more material between you and the fallout, the less radiation that gets through.

Time—the later in the day that the bomb explodes, the safer it is.
Decontamination—fallout particles must be removed only by wiping.

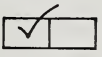
38. Match the protective measure with the item that best describes it. 4

1) Distance _____
2) Shielding _____
3) Time _____
4) Decontamination _____

a. The sending out of harmful rays of energy
b. Radioactivity decreases as time passes.
c. The farther you are from the bomb burst, the safer you are.
d. Fallout particles, like dust, can be removed from most surfaces by washing, vacuum cleaning, and plowing under.
e. The more material there is between you and the fallout, the safer you are.

1

2



3

4

1) c
2) e
3) b
4) d

39. Which of these describes what you should do before entering a shelter after you have been in a contaminated area? 4

Brush off your clothes.	Wash your hands and face.

40. You can decontaminate yourself by 1) brushing and shaking your clothes, discarding those that are heavily contaminated; and 2) washing your hands and face. Both these steps are to be taken before entering a shelter so that the radioactive particles are not taken into the shelter with you. 2
Which is correct?

Radioactive particles cannot harm you in a shelter.	Decontamination is one of the protective measures to be taken in the presence of fallout.

41. Refer to Figure 1, page 2-7, for the following two frames. 1

An enemy air attack is first detected by:

_____ a. Office of Civil Defense (OCD).
_____ b. radar stations.
_____ c. North American Air Defense Command (NORAD).
_____ d. (none of these)

42. Which of these identifies the organization that alerts the 500 warning points at State and local levels? 3

OCD	NORAD

1	2	3	4
b	☐☑	☑☐	BOTH

43. Refer to CIVIL DEFENSE WARNING SIGNALS, page 2-8, for the following two frames.
Civil Defense warning signals are:

4

a steady sound from a siren or a horn.	standard throughout the country.

44. Which is correct?

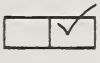
2

The attention or alert signal is a steady blast of 3 to 5 minutes. It means listen for emergency information.	The attack warning signal is a wavering tone on a siren or a series of short blasts on a horn for 3 to 5 minutes. It means an attack has been detected.

45. The Emergency Broadcast System (EBS) provides official information and guidance to the public in national emergencies. At least one AM radio station in an area is authorized to stay on the air to broadcast this vital information. All other stations shut down. This system replaces the older system known as CONELRAD. Which is true?

3

The Emergency Broadcast System replaces CONELRAD.	To pick up official broadcasts from EBS, a person needs an AM radio.

1	2	3	4
	BOTH	BOTH	

4

46. Match the terms with their correct explanations.

1) ATTACK WARNING SIGNAL _____

2) ATTENTION OR ALERT SIGNAL _____

3) EBS _____

4) OCD _____

5) NORAD _____

a. A wavering tone or series of short blasts for 3 to 5 minutes that means take protective action
b. The broadcast system that delivers official emergency information to the public
c. The organization that radar sites warn as soon as enemy missiles or aircraft are detected
d. A steady blast of 3 to 5 minutes that means listen for emergency information
e. The Office of Civil Defense (Federal)
f. The place where an enemy air attack is first detected

2

47. Nuclear attack is the most dangerous emergency facing this country. However, there are other kinds of disasters that require emergency planning. "Natural" disasters such as floods, fires, hurricanes, and tornadoes must also be planned for. (Each of these will be discussed further in Unit Three.)
Which is true?

_____ a. Other types of emergencies that release atomic energy are floods, fires, hurricanes, and tornadoes.
_____ b. Some disasters that require emergency planning are not man-made. These include floods, fires, hurricanes, and tornadoes.
_____ c. "Natural" disasters are even more dangerous than nuclear attack.
_____ d. (all of these)

TURN TO THE FOLLOWING PAGE AND BEGIN THE REVIEW SECTION

1

2

b

3

4

1) a
2) d
3) b
4) e
5) c

Use the same procedures you used in the Pre-Test to answer the following questions.

1. Which of these is the type of modern weapon that is considered most dangerous to man?

____ a. nuclear
____ b. biological
____ c. conventional
____ d. chemical

2. Which of these lists the products of a nuclear explosion?

____ a. Radioactive decay, roentgen, ground zero, and nuclear weapons
____ b. Initial nuclear radiation, heat, blast wave, blast wind, and fallout
____ c. (both)
____ d. (neither)

3. Which of these products of a nuclear explosion is dangerous to man?

____ a. blast wave
____ b. initial nuclear radiation
____ c. fallout
____ d. (all of these)

4. Which of these is one of the conditions that determine the extent of fallout from a nuclear explosion?

____ a. type of aircraft
____ b. altitude of the bomb burst
____ c. (both)
____ d. (neither)

5. Which of these statements is true regarding exposure to radiation?

____ a. During an average lifetime, every human receives about 10 roentgens of radiation from natural sources.
____ b. Death is certain to occur if a person receives a dose of 100 roentgens of radiation over a short period.
____ c. (both)
____ d. (neither)

6. Which of these statements is true regarding exposure to radiation?

____ a. Exposure to 100 roentgens of radiation will probably cause death.
____ b. Few people get sick if exposed to 600 roentgens or more over their whole body in a short period of time.
____ c. (both)
____ d. (neither)

7. Which of these is true?

____ a. Young people need less protection from nuclear radiation than do older people.
____ b. Older people do not absorb radioactive elements into their bones and internal organs as easily as younger people do.
____ c. (both)
____ d. (neither)

8. Which of these is true of radiation sickness?

____ a. Its seriousness depends upon the altitude of the bomb burst.
____ b. Its seriousness depends upon the intensity of the radiation and length of exposure.
____ c. (both)
____ d. (neither)

9. Which of these is true of radiation sickness?

____ a. It is very contagious.
____ b. Its first symptoms usually are nausea, vomiting, and weakness.
____ c. (both)
____ d. (neither)

10. Which of these is a piece of equipment used to measure radiation?

____ a. dosimeter
____ b. ratemeter
____ c. (both)
____ d. (neither)

11. Which of these is true regarding special clothing and medicines as protection from radiation?

____ a. Certain types of practical protection clothing can be worn by most people to prevent radiation damage.
____ b. Radiation pills have been developed that protect people from the effects of fallout radiation.
____ c. (both)
____ d. (neither)

12. Which of these choices correctly matches two radiation-measuring instruments with their descriptions?

1) ratemeter
2) dosimeter

a. Measures the direction the radiation is coming from.
b. Measures the total amount of radiation a person has been exposed to.
c. Measures the intensity of radiation.

____ a. 1) a, 2) b
____ b. 1) c, 2) b
____ c. 1) b, 2) c
____ d. (none of these)

13. Which of these correctly lists the four measures of protection from fallout?

____ a. Space, shielding, time, and detection
____ b. Distance, detection, time, and decontamination
____ c. Distance, shielding, time, and decontamination
____ d. (none of these)

14. Which of these are methods of decontaminating yourself before entering a shelter for a long stay?

____ a. Brushing and shaking your clothes, discarding those that are heavily contaminated
____ b. Spraying yourself with antiradiation fluid
____ c. (both)
____ d. (neither)

15. It is anticipated that an enemy air attack will be first detected by:

____ a. OCD (Office of Civil Defense).
____ b. radar stations.
____ c. NORAD (North American Air Defense Command).
____ d. (none of these)

16. Which of these correctly describes the Civil Defense warning signals?

____ a. The ATTACK signal is a steady blast of 3 to 5 minutes.
____ The ALERT signal is a steady blast of more than 5 minutes.
____ b. The ATTACK signal is a wavering tone or a series of short blasts for 3 to 5 minutes.
The ALERT signal is a steady tone or blast for 3 to 5 minutes.
____ c. The ATTACK signal is a wailing tone for more than 5 minutes.
The ALERT signal is a series of short blasts for 3 minutes.
____ d. (none of these)

17. Which is correct?

____ a. The ALERT signal means: "Listen for emergency information."
____ You should turn on your radio and get ready to take cover.
____ b. The ATTACK signal means that an attack has been detected.
You should take cover immediately.
____ c. (both)
____ d. (neither)

18. Which of these is the correct description of how EBS (Emergency Broadcast System) operates?

____ a. At least one station in an area is authorized to remain on the air and transmit official information and instructions.
____ b. Everyone is instructed to tune to NORAD for emergency instructions.
____ c. All local stations shut down.
____ d. (none of these)

19. Besides nuclear attack, other disasters that threaten the country and require emergency planning are:

____ a. hurricanes and tornadoes.
____ b. floods and fires.
____ c. (both)
____ d. (neither)

NOW TURN TO THE FOLLOWING PAGE AND
CHECK YOUR ANSWERS

Check each of your answers.

1. a (2-1)
2. b (2-1, 2-2)
3. d (2-1, 2-2)
4. b (2-3)
5. a (2-3)
6. d (2-3)
7. b (2-3)
8. b (2-3)
9. b (2-3, 2-4)
10. c (2-4)
11. d (2-5)
12. b (2-4)
13. c (2-5, 2-6)
14. a (2-6)
15. b (2-7)
16. b (2-8)

(continued on following page)

17. c (2-8)

18. a (2-8)

19. c (2-9)

If you missed a question, refer to the page number that is shown with the correct answer. This reference will tell you why your answer is wrong. For example, the page number shown with the answer to question 1 is 2-1. If you selected any choice other than a, turn to page 2-1 and find why a is the correct choice.

WHEN YOU HAVE FINISHED CHECKING YOUR ANSWERS,
TURN TO THE FOLLOWING PAGE AND BEGIN UNIT THREE

UNIT THREE

PROTECTION AT HOME

PERMANENT SHELTERS

Read Panel 1 on the following page. Be prepared to live in a shelter for as long as TWO WEEKS in case of a nuclear attack. Civil Defense recommends two weeks to allow for a reduction of radiation danger.

During your stay in a shelter, go outside only if it is necessary for survival. Fallout is most dangerous during the first two days following a nuclear attack.

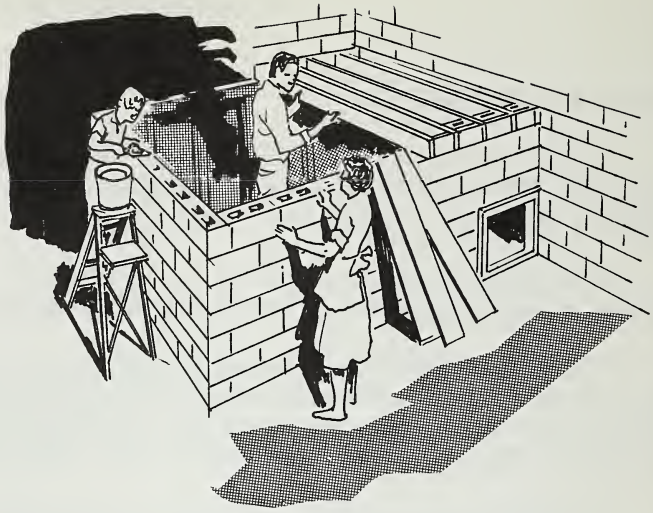
The safest place for a shelter in a home is in the basement. A basement is below ground, and the foundation walls offer good protection. If you have no basement and you want a permanent shelter, build it in your backyard close to the house. As shown in Panel 1, concrete blocks, sand, and earth are protective materials.

The permanent shelters in Panel 1 can be built for less than $150. In all of these shelters, danger from fallout will be at least 100 times less than in unprotected areas.

LAST-MINUTE IMPROVISED SHELTER

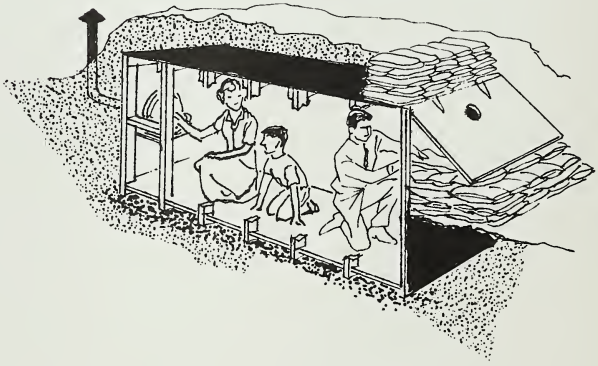
It is impossible to say how much time you will have to act once a warning has been received. It is true that enemy bombers can be tracked while hours away, but enemy missiles can arrive unannounced. A brief warning by radio or sirens can give you enough time to act and protect yourself.

Shelter A. This family is building a compact basement shelter of sand-filled concrete blocks. Solid concrete blocks are used for the roof shielding. This type of shelter can also be built of brick or structural tile.



Shelter B. This sand-filled lean-to basement shelter will accommodate three persons. The house itself gives partial shielding. Sandbags are used to block the end of the shelter.

Shelter C. This backyard plywood shelter can be built partially above ground and mounded over with earth, or be built totally below ground level.
A gravel drain under the shelter and a ditch outside help keep it dry. The family blocks the entrance with sandbags after entering the shelter.



Panel 1. Permanent Shelters

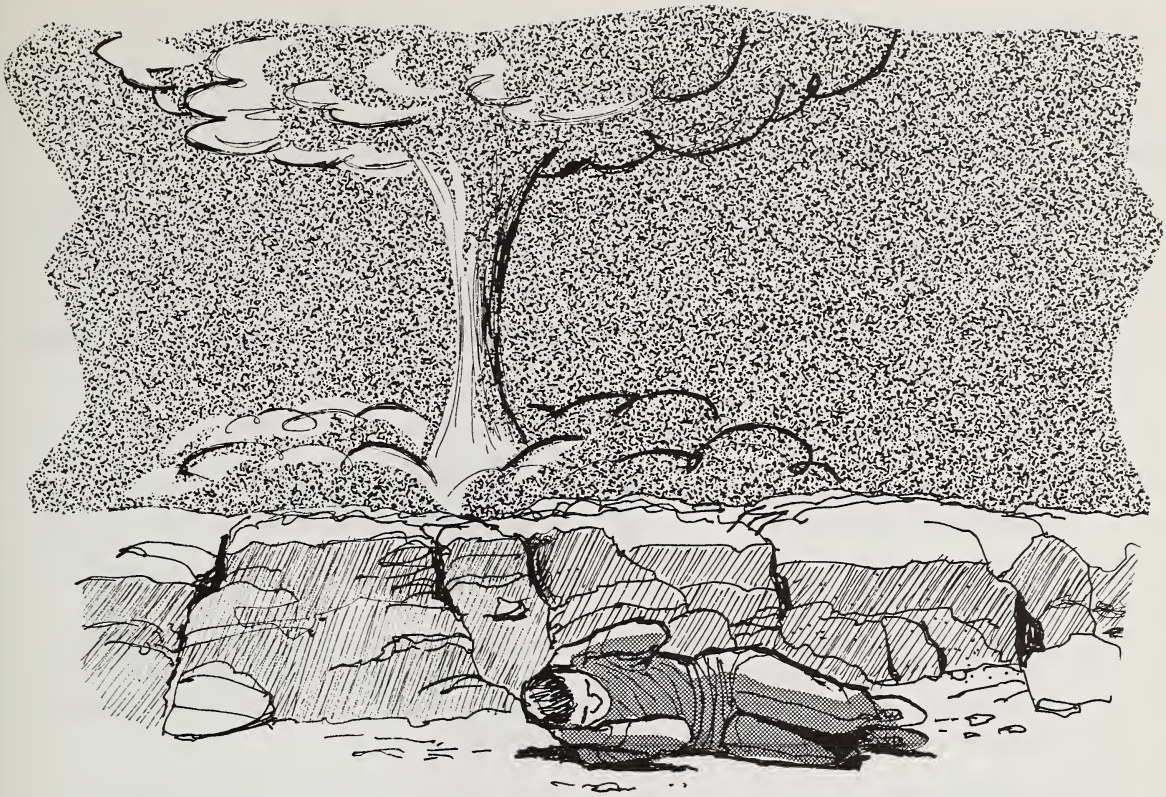


Figure 1

IMPROVISED BLAST PROTECTION

If your first warning of nuclear attack is the flash of an explosion, follow these eight guidelines:

1. Don't look toward the flash.
2. If you are inside, get under or behind the nearest desk, table, sofa, or other piece of sturdy furniture.
3. Try to get in a shadow; it will help shade you from the heat.
4. Lie down on your side and curl up. Put your hands over the back of your neck, and tuck your knees up against your chest.
5. Stay away from windows—they admit heat rays and also may shatter.
6. If you are outside, run into a building if possible and assume the same curled-up position facing a corner.
7. If you cannot get into a building, find the lowest, most protected spot, such as a ditch, gutter, or depression in a lawn. Lie down in the curled-up position. Face away from loose or breakable objects.
8. If you are far enough away from the explosion, you may feel no effect at all. Stay where you are for five minutes. After five minutes, you will have about half an hour to find protection from fallout.

IMPROVISED FALLOUT PROTECTION

Read Panel 2 on the following page. After shielding yourself from the blast of a nuclear explosion, your next job is to improvise some fallout protection. Here are six general guidelines for last-minute fallout protection:

1. A basement offers more protection than the aboveground floors in a home. The central areas of middle floors in large buildings offer adequate protection.

2. A corner of a basement that is below ground level is better than the middle of the basement.

3. On aboveground floors, improvise shelter away from outside walls.

4. When improvising shelter, concentrate the shielding material immediately around and above you.

5. Stay away from windows and outside doorways.

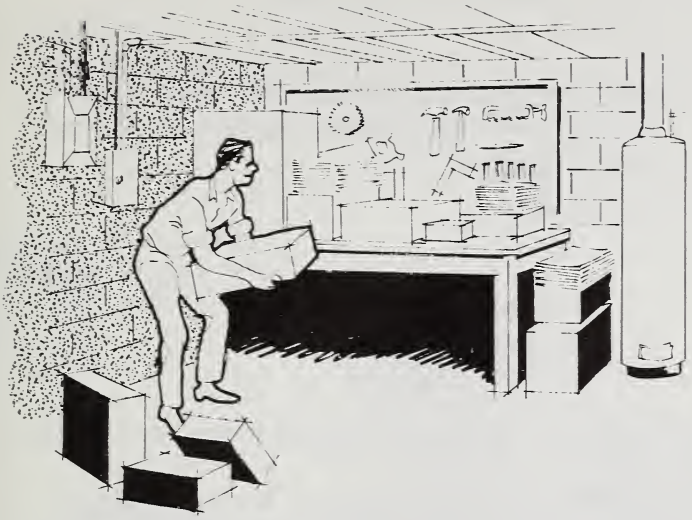
6. If caught in the open, try to get to some substantial structure, such as a large building, tunnel, or cave. If none of these are available, look for a culvert, underpass, or ditch. Get into anything that will get you below ground level. Then improvise your shelter.

(This information is also contained on "Tear-Out 4" which will be referred to later.)

SHELTER PREPARATIONS

1. Necessities

Ventilation. Fresh air is more vital than food and water. A basement home shelter will get its air from cracks through which fallout particles are unlikely to drift. Well-sealed community shelters and home underground shelters need ventilation systems. Even at rest, a person needs at least three cubic feet of air a minute.

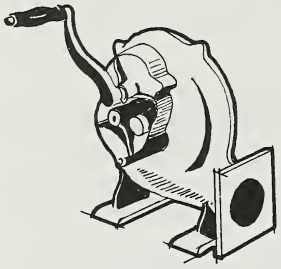


Shelter A. This man is improvising a fallout shelter in a basement corner by stacking heavy material on and at the open sides of a sturdy table. Piling dirt and other heavy material in the basement window wells will improve his margin of protection.

Shelter B. If you have no basement, you can improvise a shelter by digging a trench next to the house, and making a lean-to structure with house doors. Pile the dirt from the trench and other heavy objects on top of the doors and at the sides for as much radiation shielding as possible.

Panel 2. Improvised Shelter

Home underground shelters may use a three-inch intake pipe to suck in fresh air by means of a hand-operated blower (See Figure 2 below). The blower is cranked periodically, and an exhaust pipe is set up to force out the stale air. The air intake pipe should extend at least a foot above ground with a weather cap over it to keep out fallout particles. Motorized blowers should not be depended upon because of possible power failures after an attack.



A hand-operated air blower will provide ventilation for any underground family shelter.

Figure 2

Water. Water is more important than food. Plan on one gallon a day, per person.

Store water in five-gallon or larger containers to save space. If you use small containers, seal them well and pack them with newspapers to prevent breakage. Announcements on your radio may tell you whether local water supplies are safe. If they are not, you can store a safe water supply in your house by closing the water shutoff valve leading in from the street.

Food. (Refer to "Tear-Out 1" and "Tear-Out 2.") Choose enough food to last at least two weeks and follow these suggestions:

a. Select familiar foods that will last for months without refrigeration and can be served without cooking.

b. Choose canned meat, fish, poultry, beans, peas, and fruits; cereals and tinned baked goods; cheese spreads, peanut butter and jellies with crackers; evaporated or dried milk.

c. Pick cans and packages of a size that will serve only one meal at a time for your family. This will prevent loss of food from spoilage.

d. Keep all foods in their original containers. Those that do not come in cans should be wrapped and tape-sealed in polyethylene sheets.

e. Write the date of purchase on cans or packages, and use oldest purchases first.

2. Sanitation. In a small shelter, good sanitation is a matter of life or death. Diseases can still kill as surely as blast or radiation. The biggest single problem is getting rid of human waste, which can spread such diseases as typhoid, dysentery, and diarrhea.

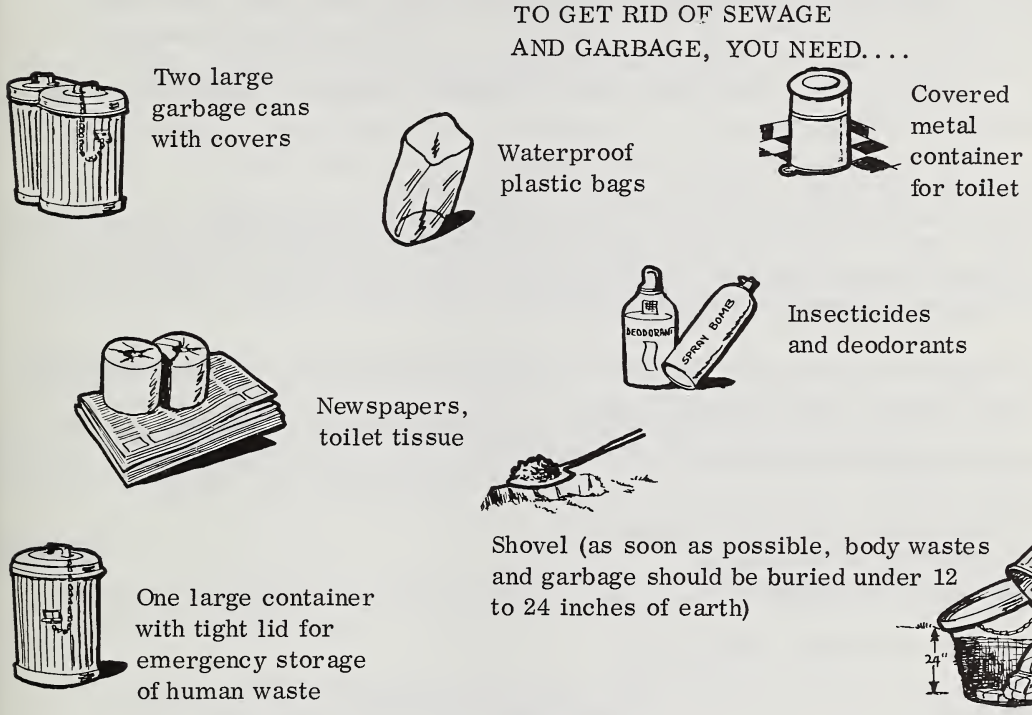


Figure 3

The simplest way to get rid of waste is to use a metal pail with a tight cover. A toilet can be made by cutting the seat out of a chair and placing the pail under it. In either case, you need a supply of plastic bags. Place a bag in the pail with its top overlapping the pail rim. A small amount of disinfectant (creosol or household bleach) can help control odors and insect breeding.

Use a larger can with a cover, such as a garbage can, to store the plastic bags after use. After two days, place the container outside the shelter. Later, bury this waste under one to two feet of earth. Garbage is taken care of in the same way. Wrap it in several thicknesses of newspaper and put it in a covered can.

3. First Aid and Medical Supplies. (Refer to "Tear-Out 3.")
A first aid kit and instruction booklet belong in the shelter. Check and renew supplies as necessary every few months. If some members of the family are allergic to certain medicines, their allergies should be considered when stocking the first aid kit. Most drugs are potentially dangerous. Store them out of the reach of children. Medical supplies must fit the needs of the family.

4. Control of Insects, Rats, and Mice. Paint or spray the shelter with a five percent solution of DDT or other insecticide containing chlordane, dieldrin, Diazinon, or ronnel. Repeat every few months. Lice and other body-infesting insects can be eliminated by dusting with a 10 percent DDT dust and keeping it on the body and in clothing for 24 hours. Stock the shelter with screening material, a fly swatter, and mouse and rat traps. Do not use spray insecticides in an occupied shelter; there is danger of explosion or of injuring eyes and lungs.

5. Summary of Supplies. (Refer again to "Tear-Out 2.")
All of the items discussed so far in this section are summarized, in chart form, in "Tear-Out 2." Some of the items, such as tools, clothing, and bedding, need not be taken into the shelter, but keep them within easy reach in case you need to move them into the shelter in a hurry.

When shelters are not being used for emergency protection, they can be used for many other things. Here are just a few:

1. Extra room for guests
2. Hobby room
3. Storage space for food or equipment
4. Safe keeping of valuables
5. Playroom for children

PREPARING FOR NATURAL DISASTERS

Flood Preparations

1. Pack dishes, canned goods, and household supplies in baskets and other containers. Store these and movable furniture on top floor.
2. Disconnect electrical appliances and motors. If possible, remove these to safety.
3. Turn off gas appliances.
4. Leave early, and take a supply of food and water from your shelter stock.

Hurricane Preparations

1. Park car in garage or away from trees and poles.
2. Take porch furniture, garden tools, and garbage cans inside, or lash them down securely outside.

3. Close and board up all windows, except one or two on sides of house away from path of storm.

4. Cut off electricity and gas.

5. Store a supply of safe drinking water.

Tornado Actions

In the home: Go to your shelter or southwest corner of basement. If you have no basement or storm cellar, go to a cave, ravine, or ditch.

In city or town: Seek inside shelter, preferably in a structural steel building. Stay away from windows.

In buildings: Sit against inside wall on lower floor.

In schools: If the school has no basement, sit against inside wall on lower floor. If in one-room frame school, seek refuge in ravine or ditch.

In open country: 1) Move at right angles to the tornado's path. Tornadoes usually move ahead at about 25 to 40 miles per hour. 2) If there is no time to escape, lie flat in the nearest depression, such as a ditch or ravine. There is no better protection against tornadoes than underground excavations.

FIRST AID

At least one member of every family or group of workers should take either the Red Cross First Aid Course or the Medical Self-Help Course. These courses are available in nearly all communities.

Supplies

It is recommended that each family have on hand a book on family health and first aid such as:

1. Family Guide, Emergency Health Care (Given to students enrolled in the Medical Self-Help Training Course.)
2. Standard First Aid Textbook, Red Cross (Used in Red Cross Course)
3. Home Nursing (Red Cross textbook)
4. Care of Sick and Injured (Red Cross Instructors Guide)

Now refer to "Tear-Out 5" and see how many items on the Outline for Family Emergency Planning you can fill in. Complete it as soon as possible and place it in a prominent spot at home or at work so it will be available when needed. Keep it up to date. It will serve as an emergency guide if disaster strikes.

NOW TURN TO THE FOLLOWING PAGE AND BEGIN
THE TEACHING SECTION

4

1. In the event of nuclear attack, OCD recommends being prepared to live in a shelter for two weeks even though the greatest danger is during the first two days.
Which is true?

The danger from harmful rays of energy is very high during the first two days after a nuclear explosion.	The danger from harmful rays of energy is not so great two weeks after a nuclear explosion.

1

2. In case of a nuclear attack, OCD recommends being prepared to live in a shelter for:

_____ a. three weeks.
_____ b. two days.
_____ d. three months.
_____ d. two weeks.

3

3. The danger from radiation is greatest during the first two days following a nuclear explosion.
You can guess from this that there is:

little fallout during the first two days.	heavy fallout during the first two days.

1	2	3	4
d		☐☑	BOTH

4. Make only emergency trips outside of the shelter during the first two weeks following a nuclear explosion.
Which is correct?

2

It is not dangerous to leave a shelter after the first two days, since fallout radiation is reduced.	There is little danger from radiation during the last 12 days of your two-week stay in a shelter.

5. The safest place for a home shelter is in the basement. If you have no basement, you can build a permanent shelter in your backyard close to the house.
Which is true?

3

_____ a. The danger from radiation is greater in a basement shelter than anywhere else in the house.
_____ b. The danger from radiation is less in a basement shelter than anywhere else in the house.
_____ c. The safest place to build a shelter at home is in the backyard.
_____ d. (none of these)

6. Complete the following statements.

1

a. Be prepared to spend _____ weeks in a shelter in case of nuclear attack.
b. Fallout and its radiation is greatest in the first _____ days after a nuclear explosion.
c. The safest place in a home for a shelter is the _____.

1	2	3	4
a. two b. two c. basement	NEITHER (There is danger from radiation during the entire two weeks. The first two days are the most dangerous.)	b.	

7. Refer to PERMANENT SHELTERS, pages 3-1 and 3-2, to answer the next three frames.
Which is true of the shelters in Panel 1?

4

They all can be built for less than $150.	They all use sand or earth for part of their shielding.

8. Which is true of the two basement shelters shown?

1

Shelter A is made mostly of sand and wood, with sand bags stacked at the end.	Shelter B is made mostly of sand-filled concrete blocks.

9. You know that the building materials providing the most protection in Shelter C are the:

2

sheets of plywood used in its construction.	earth and sand bags put around it.

10. Refer to Figure 1 and IMPROVISED BLAST PROTECTION on page 3-3 to answer the next two frames.
Which of these correctly describes three of the eight guidelines for improvising blast protection?

3

1) Don't look toward the flash. 2) Lie flat on your back with your hands at your sides. 3) If you are outside, find the highest point of ground, and lie down on it.	1) If you are inside, get under or behind the nearest desk, table, sofa, or other piece of sturdy furniture. 2) Try to get in a shadow; it will help shade you from the heat. 3) Stay away from windows — they admit heat rays and also may shatter.

1	2	3	4
NEITHER (Shelter A is made of sand-filled concrete blocks, and Shelter B is made of wood, sand, and sand bags.)	☐☑	☐☑	BOTH

11. Which of these describes the correct position to take when shielding yourself from the blast?

2

Lie down on your side and curl up.	Put your hands over the back of your neck and tuck your knees up against your chest.

12. Refer to Panel 2, page 3-5, and IMPROVISED FALLOUT PROTECTION on page 3-4 to answer the next two frames. Which of these correctly describes three of the six guidelines for improvising fallout protection?

1

1) The top floor of a home is better than the basement. In large buildings, the roof is the safest. 2) On aboveground floors, improvise shelter against outside walls. 3) Don't worry about windows and outside doorways.	1) The middle of a basement is better than a corner. 2) When improvising shelter, the bigger it is the better. 3) If caught in the open, get to any spot that is higher than the ground level. Then improvise your shelter.

1 NEITHER (There is something wrong with each of these guidelines. If you are not sure exactly what it is, refer back to page 3-4.)	**2** BOTH	**3**

13. Refer to Panel 2 and "Tear-Out 4."
Which is true of the examples shown?

1

1) Basement shelter is better than aboveground floors.
2) A corner of a basement is the best place to build a shelter.
3) Keep shelter small and concentrate the shielding material immediately around and above you.

The man improvising Shelter B is following these guidelines:

1) Keep shelter small and concentrate shielding materials immediately around and above you.
2) Get below ground level.

2

14. Three necessities for sustaining life in a shelter, in the order of their importance, are:

1) ventilation,
2) water, and
3) food.

You know that these items, together with other equipment, must enable you to stay in your shelter for a recommended time of:

_____ a. two weeks.
_____ b. three weeks.
_____ c. two days.
_____ d. (none of these)

1	2	3	4
BOTH	a		

15. Which of these necessities do you need in a shelter? 2

_____ a. water

_____ b. ventilation

_____ c. food

_____ d. (all of these)

16. In the order of their importance, list three necessities for sustaining life in a shelter: 3

1) _____

2) _____

3) _____

17. Refer to Figure 2 on page 3-6. 1
A hand-operated air blower provides adequate ventilation for any underground family shelter.
Which is true?

All shelters must have motorized air blowers.	A hand-operated air blower is a necessity for an underground shelter.

18. One gallon of water per person per day is the amount recommended for a water supply in a shelter. 4
Which is true?

For three people, the amount of water recommended for two weeks in a shelter is 42 gallons.	For two people, the amount of water recommended for two weeks in a shelter is 28 gallons.

1	2	3	4
☐☑	d	1) ventilation 2) water 3) food	BOTH

19. You know that a shelter food supply should be planned to last for at least:

4

two months.	two weeks.

20. Refer to "Tear-Out 1" and to the paragraph on "Food" on page 3-6 to answer this question. Which of these are suggestions to follow when choosing a two-week supply of food for a fallout shelter?

2

_____ a. Select familiar foods.
_____ b. Pick cans and packages of a size that will serve only one meal at a time to your family.
_____ c. Keep all foods in their original containers. Keep those that do not come in cans wrapped and tape-sealed in plastic.
_____ d. (all of these)
_____ e. (none of these)

21. Match the item with the description that applies to it. (Each item has more than one correct description and some descriptions apply to more than one item.)

1

1) ventilation _____
2) water _____
3) food _____

a. Select familiar kinds and have enough for two weeks
b. The best place in a home for a shelter
c. A necessity for sustaining life in a shelter
d. One gallon per day per person while in a shelter
e. Hand-operated air blower is necessary for underground family shelter.

1	2	3	4
1) c, e 2) c, d 3) a, c	d		☐☑

22. Wherever people live, adequate sanitation is an important matter. In the limited space of a shelter, it can be a matter of life or death.

3

You can guess that:

_____ a. after making preparations for enough ventilation, water, and food, your next step is to arrange adequate sanitation facilities.

_____ b. after making preparations for enough ventilation, water, and food in a shelter, your next step is to arrange for fallout protection.

_____ c. preparations for sanitation should come before those for ventilation, water, and food.

_____ d. (none of these)

23. Look at Figure 3 on page 3-7.

2

Which of these are essential items for proper treatment or handling of sewage and disposal of garbage?

_____ a. Waterproof plastic bags

_____ b. Insecticides and deodorants

_____ c. An open metal container

_____ d. (a and c)

_____ e. (a and b)

_____ f. (all of the above)

1	2	3	4
	e	a	

4

24. Refer to "Tear-Out 3." Important items for your shelter are a first aid kit and an instruction booklet. Treatment of minor injuries and ailments is vital since you may be unable to get a doctor for several days.
Which is true?

_____ a. Medical supplies are not considered a necessary item in your shelter supplies.
_____ b. Every shelter needs medical supplies for emergency use.
_____ c. Medical supplies are considered more important than food and water.
_____ d. (none of these)

2

25. Which is true?

Sanitation is a matter of comfort in a shelter and not too important.	First aid will not be an important consideration in a shelter, since there will always be doctors available.

3

26. Before your shelter is needed, steps must be taken to keep out insects, mice, and rats. Painting or spraying with a five-percent solution of DDT or other strong insecticides will do the job.
Which is true?

Another important step in preparing your shelter for occupancy is to keep out insects, mice, and rats.	Control of insects, mice, and rats in a shelter is done only after a nuclear attack.

1	2	3	4
	NEITHER (Both of these items must be provided for in a shelter.)	☑	b

4

27. Do not use spray insecticides during the time your shelter is occupied. The danger is high in an enclosed area of an explosion from such sprays, and of injuring eyes and lungs.
Which is true?

_____ a. Insect sprays can be used at any time in a shelter.
_____ b. Insect sprays are not very effective in a shelter.
_____ c. Insect sprays should be used before a shelter is occupied.
_____ d. (none of these)

1

28. In order to control pests that might get into your shelter after occupancy, include screening material, fly swatters, and mouse and rat traps in your supplies.
Which is true?

Screening material, fly swatters, and mouse and rat traps are more essential items than ventilation equipment, water, and food.	Screening material, fly swatters, and mouse and rat traps are to be used before your shelter is needed because of their danger to people.

2

29. Which is true?

Getting rid of insects, mice, and rats is an important job that must be done before you need your shelter.	To control insects and other pests after your shelter is occupied, use a five-percent solution of DDT and spray it carefully.

1	2	3	4
NEITHER (Ventilation, water, and food still come first. The materials listed are used after occupancy.)	☑		c.

30. Refer to "Tear-Out 2" for the next two questions. Which of the items shown in the "Tear-Out" are considered the most essential? 2

_____ a. Those not in shaded areas.
_____ b. Those in shaded areas.
_____ c. Those at the top of the page.
_____ d. (none of these)

31. Which of these correctly lists some of the items considered "most essential" in your list of shelter supplies? (Refer to "Tear-Out 2.") 4

_____ a. Civil Defense instruction manual
Pliers and saw
Water
Clock

_____ b. Civil Defense instruction manual
Water
First aid kit
Radio

_____ c. Civil Defense instruction material
Water
Matches
Blankets

_____ d. (none of the above)

32. Fallout shelters and the supplies in them can also be used for emergencies such as fires, floods, hurricanes, and tornadoes. Which is true? 1

_____ a. Fallout shelters and the supplies in them should be used only for protection from harmful rays of energy.
_____ b. Fallout shelters and the supplies in them can be used for natural disasters.
_____ c. Fallout shelters and the supplies in them are costly items since they can never be used for anything but nuclear attack.
_____ d. (none of these)

1	2	3	4
b	b		b

33. Which is true? 3

Fallout shelters, or the supplies in them, can be used for natural disasters, such as fires, floods, hurricanes, and tornadoes.	Fallout shelters can be used for protection from nuclear attack.

34. In addition to protection from nuclear attack, fallout shelters or their supplies can be used for natural disasters such as _____, _____, _____, and _____. 2

35. When not being used for emergency protection, fallout shelters can be used for many other things. Here are just a few examples: 4

1) Extra room for guests
2) Hobby room
3) Storage space for food or equipment
4) Safekeeping of valuables
5) Playroom for children

You can see from this list that fallout shelters:

must be boarded up when not in use.	must not be used for anything else except emergency shelter, since you never know when a disaster may strike.

1	2	3	4
	fires, floods, hurricanes, tornadoes (any order)	BOTH	NEITHER (They can be used for almost any purpose a person wishes.)

1

36. Refer to Flood Preparations on page 3-8 for this frame.
Which contains correct examples of two of the four flood preparations?

1) Taking food and water into your fallout shelter
2) Packing dishes, canned goods, and other household supplies in boxes and storing them in the basement

1) Shutting off the gas stove and water heater
2) Taking food and water from your fallout shelter supply and leaving early enough to get to high ground

2

37. Refer to Hurricane Preparations on page 3-8 for the next two frames.
Which describes a person who is correctly following the first two steps?

A man hurries home from work after hearing that a hurricane is coming. He parks his car in the front yard. After stacking all his yard equipment and porch furniture in a pile beside the house, he then takes his family into their shelter.

A man hurries home from work after hearing that a hurricane is coming. He parks his car in his garage. After stacking his yard equipment, porch furniture, and garbage cans on the front porch, he then takes his family into their shelter.

3

38. Which of these describes hurricane preparations?

Cut off electricity and gas. Close and board up all windows, except one or two on sides of house away from path of storm.

Store a supply of safe drinking water.

1

2 NEITHER (The car should be parked in the garage and all equipment should be taken into the house or tied down securely outside.)

3 BOTH

39. Refer to Tornado Actions on page 3-9 for the next three frames. If a tornado strikes while you are in school which of these do you do? 2

Always go outside and lie flat in a ditch.	If there is no basement, sit against inside wall on lower floor.

40. When caught by a tornado in open country which is a correct procedure to follow? 3

_____ a. Move at right angles to the tornado's path.
_____ b. Climb the nearest tree.
_____ c. Find some high ground and lie down.
_____ d. Lie flat in a ditch or ravine.
_____ e. (a and b)
_____ f. (a and d)
_____ g. (a and c)
_____ h. (all of the above)
_____ i. (none of the above)

41. Which is correct? 1

There is no better protection against tornadoes than underground excavations.	The best protection against tornadoes is to try and get as high above the ground as you can.

1	2	3	4
☐✓	✓☐	f	

42. Refer to FIRST AID on page 3-9.
At least one member of a family or a group of workers should:

2

be a member of the Red Cross.	have training in first aid.

43. First aid training is available to anyone through the:

4

Medical Self-Help Course.	Red Cross First Aid Course.

44. Which is correct?

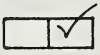
3

People in rural areas must go to the nearest hospital to get training in first aid.	Training in first aid is available in nearly all communities.

45. Which of these books is recommended as a guide to family health and first aid?

1

_____ a. Family Guide: Emergency Health Care (DHEW)
_____ b. Home Nursing (Red Cross)
_____ c. Care of Sick and Injured (Red Cross)
_____ d. (all of these)

1	2	3	4
d			BOTH

46. Which is correct? 1

_____ a. All training in first aid is conducted by the Red Cross.
_____ b. One member of each family or group of workers should have training in first aid.
_____ c. Medical Self-Help is the title of a book on family health.
_____ d. (all of these)

47. First aid courses are available in nearly every community through the _____ _____ or the _____ _____ course. 2

48. Refer to "Tear-Out 8," BE PREPARED. 3
You are well prepared to meet an emergency if you can answer "yes" to:

all of the checkpoints. | the first and ninth checkpoints.

49. Pick the items that make you well prepared to meet disasters. 4

_____ a. You know the attack signals and what to do if they sound.
_____ b. You know how to prevent nuclear attack.
_____ c. You know how to drive a car.
_____ d. You have fire extinguishers, a hand pump, and/or garden hose properly located for fire fighting purposes.
_____ e. You know the exact procedures for setting a broken arm.
_____ f. You have the necessary first aid supplies.
_____ g. Your house, garage, and yard are clear of burnable rubbish.
_____ h. You know how to turn off electricity, gas, and water at main switches.

1	2	3	4
b	Red Cross, Medical Self-Help	☑☐	a, d, f, g, h (Make sure you can answer "yes" to all items on the "Tear-Out.")

50. Refer to "Tear-Out 5." This outline:

will help you plan for emergencies.	should be filled out and kept in a prominent place.

TURN TO THE FOLLOWING PAGE AND BEGIN THE REVIEW SECTION

1	2	3	4
		BOTH	

C. REVIEW SECTION

Use the same procedures you followed in the Pre-Test Section to answer the following questions.

1. What length of time is recommended by OCD for planning shelter occupancy?

   ____ a. one week
   ____ b. two weeks
   ____ c. three weeks
   ____ d. (none of the above)

2. Fallout is most dangerous:

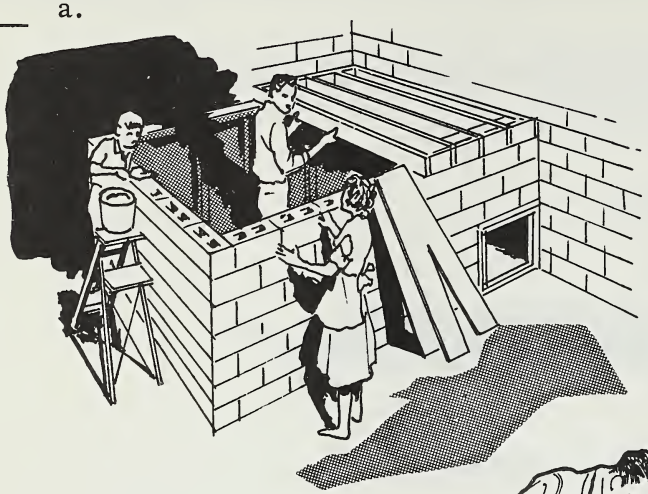
   ____ a. in the first two days after the explosion.
   ____ b. in the first two weeks after the explosion.
   ____ c. after two weeks.
   ____ d. (none of these)

3. The safest place for a shelter in a home is:

   ____ a. on the roof.
   ____ b. on the first floor.
   ____ c. in the basement.
   ____ d. in the attic.

4. Which shows a permanent shelter that can be built with about $150 worth of materials or less?

____ a.



____ b.

____ c. (both)

____ d. (neither)

5. Which correctly describes three of the right guidelines for improvising blast protection?

____ a. 1) Don't look toward the flash.
2) Lie flat on your back with your hands at your sides.
3) If you are outside, seek the highest piece of ground and lie down on it.

____ b. 1) Don't look toward the flash.
2) Lie down on your side and curl up. Put your hands over the back of your neck and tuck your knees up against your chest.
3) If you are outside, seek the lowest, most protected spot, and lie down in it in a curled-up position.

____ c. 1) Look toward the flash, but cover your eyes.
2) Lie curled up on your side with your hands over your face.
3) If you are outside, stand in the shadow of a tree. Do not get into any ditches or culverts.

____ d. (none of these)

6. Which man has taken an acceptable position for outside blast protection?

____ a.

____ b.

____ c. (both)

____ d. (neither)

7. Which correctly describes three of the six guidelines for improvising fallout protection?

____ a. 1) A basement is better than aboveground floors in a home.
2) A corner of a basement is better than the center.
3) On aboveground floors, improvise shelter away from outside walls.

____ b. 1) When improvising shelter, keep it small. Concentrate the shielding material around and above you.
2) Stay away from windows and outside doorways.
3) If caught in the open, try to get to some substantial structure, such as a large building, tunnel, or cave. If none of these are available, look for a culvert, underpass, or ditch. Get into anything that will get you below ground level.

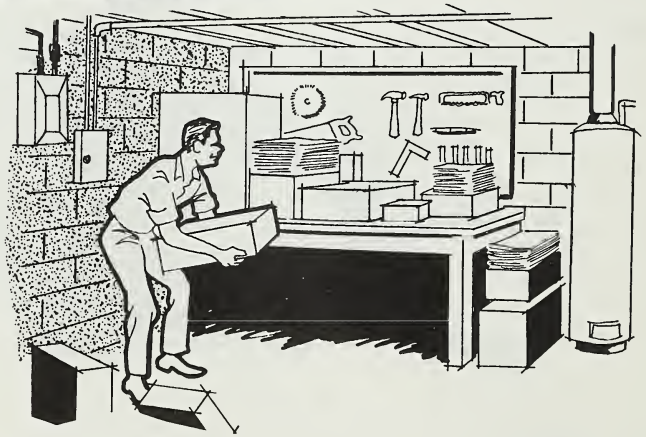
____ c. (both)

____ d. (neither)

8. Which shows a good example of improvising temporary fallout protection inside a home?

____ a.

____ b.



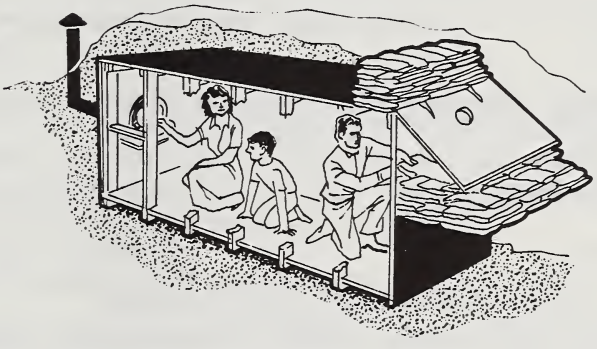
____ c. (both)

____ d. (neither)

9. Which figure illustrates a good example of improvising temporary outside fallout protection?

____ a.

____ b.



____ c. (both)
____ d. (neither)

10. Three things necessary to sustain life in a shelter are FOOD, WATER, and VENTILATION. Which choice lists these necessities in the order of their importance?

____ a. 1) ventilation 2) food 3) water
____ b. 1) water 2) ventilation 3) food
____ c. 1) ventilation 2) water 3) food
____ d. (none of these)

11. Which piece of ventilation equipment is recommended for a home shelter?

____ a. An electric air blower and exhaust system
____ b. Electric fans
____ c. A hand-operated air blower
____ d. (all of these)

12. In stocking a shelter with vital necessities, how much water is recommended for each person per day?

____ a. one quart
____ b. one gallon
____ c. one bucket
____ d. (none of these)

13. Which of these should you follow in stocking a supply of food for your shelter?

____ a. Plan on enough food for two weeks.
____ b. Choose new kinds of food for variety.
____ c. Always use large size cans and packages.
____ d. (all of these)

14. Which of these are necessary items for proper sewage and garbage disposal in a shelter?

____ a. Metal container with cover and plastic bags for toilet use
____ b. Garbage cans with covers for storage
____ c. (both)
____ d. (neither)

15. Which is true?

____ a. A first aid kit belongs in your shelter.
____ b. Sanitation is only a matter of comfort in a shelter and not too important.
____ c. (both)
____ d. (neither)

16. The control of insects, mice, and rats is very important in a shelter. Which is true regarding this necessity?

____ a. Shelters should be painted or sprayed with a five-percent solution of DDT or other insecticides before occupancy.
____ b. Supplies necessary after occupancy include screening material, fly swatters, and mouse and rat traps.
____ c. (both)
____ d. (neither)

17. Which list contains items that are considered the most essential shelter supplies?

____ a. Blankets, matches, pliers, saw, and eating utensils
____ b. First aid kit, radio, water, radiation meters, and flashlight
____ c. (both)
____ d. (neither)

18. Which of these identifies emergencies during which fallout shelter supplies may be used?

____ a. Fires and floods
____ b. Hurricanes and tornadoes
____ c. (both)
____ d. (neither)

19. Which is true about fallout shelters?

____ a. They should not be used for anything else except protection from fallout, since you never know when a nuclear attack may come.
____ b. They can be used for just about anything that a person desires, from an extra room when needed to a safe place for valuables.
____ c. They should be boarded up when not in use.
____ d. (none of these)

20. Which correctly lists the four steps to follow in preparing for a flood?

____ a. 1) Pack dishes, canned goods, and household supplies in baskets and other containers. Then store on top floor.
2) Connect electrical appliances and motors.
3) Turn off gas appliances.
4) Enter your shelter with enough food for two weeks.

____ b. 1) Pack dishes, canned goods, and household supplies in baskets and other containers. Then store on top floor.
2) Disconnect electrical appliances and motors.
3) Turn off gas appliances.
4) Leave early. Take a supply of food and water from your shelter stock.

____ c. (both)

____ d. (neither)

21. There are five steps to follow in preparing for a hurricane. Two of them are 1) Park car in garage or away from trees and poles, and 2) Take porch furniture, garden tools, and garbage cans inside, or lash them down securely outside. From this list, choose the other three.

1) Store a supply of safe drinking water.
2) Cut a fire lane around small woodlands.
3) Cut off electricity and gas.
4) Have heavy equipment available.
5) Close and board up all windows except one or two on sides of house away from path of storm.

____ a. 1, 3, 5
____ b. 3, 4, 5
____ c. 1, 4, 5
____ d. (none of these)

22. Which correctly describes actions to take to prepare for a tornado?

____ a. In buildings: Sit against outside walls on upper floors.
In schools: If there is no basement, sit against outside walls on upper floors.

____ b. In the home: Go to your shelter or southwest corner of basement. If you have no basement or storm cellar, go to a cave, ravine, or ditch.
In open country: Move at right angles to the tornado's path. Lie flat in the nearest depression such as a ditch or ravine.

____ c. (both)

____ d. (neither)

23. Which is correct?

____ a. People in rural areas must go to the nearest hospital for training in first aid.
____ b. Training in first aid is available in nearly every community.
____ c. (both)
____ d. (neither)

24. Medical Self-Help and Red Cross First Aid Training are:

____ a. the names of training courses in first aid.
____ b. books on family health and first aid.
____ c. available only to members of the Red Cross.
____ d. (none of these)

NOW TURN TO THE FOLLOWING PAGE
AND CHECK YOUR ANSWERS

1. b (3-1)
2. a (3-1)
3. c (3-1)
4. a (3-1, 3-2)
5. b (3-3)
6. a (3-3)
7. c (3-4)
8. b (3-5)
9. a (3-5)
10. c (3-4, 3-6)
11. c (3-6)
12. b (3-6)
13. a (3-6)
14. c (3-7)
15. a (3-7, 3-8)
16. c (3-8)
17. b (Tear-Out 2)
18. c (3-8)
19. b (3-8)

(continued on following page)

20. b (3-8)

21. a (3-9)

22. b (3-9)

23. b (3-9)

24. a (3-9)

If you missed a question, refer to the page number that is shown with the correct answer. This reference will tell you why your answer is wrong. For example, the page number shown with the answer to question 1 is 3-1. If you selected any choice other than b, turn to page 3-1 and find why b is the correct choice.

WHEN YOU HAVE FINISHED CHECKING YOUR ANSWERS,
TURN TO THE FOLLOWING PAGE AND BEGIN UNIT FOUR

UNIT FOUR

SURVIVAL IN RURAL AREAS

Survival procedures discussed in the previous units can be used by both city people and those in rural areas. However, people in rural areas have more problems to solve in order to survive than do people who live in the city.

City people are generally responsible for only part of their own protection. The major part is supplied by their city government and their employers. People in rural areas must provide most of their own protection.

RURAL WARNING

Rural settlements and farms are usually far from community centers. They are widely separated. Warning of an attack would often be late in coming. Powerful sirens and horns can not reach enough of these communities. Conventional AM radios have been suggested as the best method of receiving warning. If you live in a rural area, keep a radio close at hand during periods of international tension. At such times, it is suggested that a rural worker take a portable radio with him during working hours.

RURAL SURVIVAL ESSENTIAL

In case of attack, it is essential that the production of food and other agricultural products be resumed. Without food, survival is impossible. This is one of the reasons why rural survival is so important. Another reason is that rural workers in the Forest Service have the responsibility of protecting our national forests from fire. Following an attack, this would be the most important job for the majority of Forest Service personnel. The uncontrolled spread of fire through forests and woodlands would eventually threaten cities and towns.

Both of these factors — resumption of food production and protection of our national forests from fire — make rural survival essential to the welfare of our nation following a nuclear attack. Under direction of the U.S. Department of Agriculture, rural residents and workers receive training and guidance in what to do in times of emergency.

RURAL EMERGENCY EQUIPMENT

In addition to the emergency equipment mentioned in Units Two and Three, a vital piece of equipment that is necessary in rural areas is a gasoline- or diesel-powered electric generator. Even a brief loss of power can cause serious problems. Rural areas must be prepared to supply their own power in case of attack.

NEED FOR RADIATION-MEASURING EQUIPMENT

It is possible that people in rural areas need radiation-measuring equipment more than city people. People in rural areas will have more jobs to do outside their shelters. They must care for their animals, resume food production, and prevent the spread of forest fires. [Refer to the Unit Two Information Section (B) for the type of radiation-measuring equipment to be used.]

ANIMAL PROTECTION

To aid human recovery after an attack, animals in rural areas must be protected. Horses, sheep, cows, hogs, chickens, and all other useful animals must be sheltered. Barns and sheds can provide protection for large numbers of animals.

Feed and water must be provided for all animals in shelters. Hay, silage, grain, and concentrates stored before the attack will be fairly free of fallout and safe to use. Use well water instead of water from open ponds and lakes. Open water will contain radioactive fallout particles. However, thirsty animals must be given water, regardless of the possibility of radioactivity.

FIRE PREVENTION AND DEFENSE

Fire damage weakens our power to resist the enemy. It destroys farm products and the resources of our woodlands. It disrupts transportation and knocks out communications, power, and water transmission facilities. Fighting fire is an important duty following a nuclear attack or other disaster.

A civilian rural fire defense program has been set up to handle emergencies in rural areas. The U.S. Department of Agriculture, through the Forest Service, is responsible for directing and coordinating this defense.

TURN TO THE FOLLOWING PAGE AND BEGIN
THE TEACHING SECTION

B. TEACHING SECTION

2

1. Survival procedures discussed in the previous units can be used by both city people and those in rural areas. However, people in rural areas have more survival problems than do city people. Which is correct?

People in the city do not have to worry about survival.

People who live and work in the city have more of a survival problem than those who live in the country.

3

2. Survival in rural areas is more of a problem than it is in the city because:
   1) people in rural areas must provide most of their own protection, and
   2) warning of attack may be late due to the distances involved.

Which is correct?

People in rural areas have more of a survival problem than city residents. This is because they must solve more problems of protection and warning.

People in rural areas have more of a survival problem than city residents. This is because they are exposed to more fallout and radioactivity.

1

3. Which is correct?

Rural survival presents fewer problems than survival in the city.

People in rural areas must provide most of their own protection, and warning of attack may be late in coming.

1	2	3	4
☐☑	NEITHER	☑☐	

4. No solution to the problem of adequate rural warning has been found. AM radios are suggested by OCD as the best means available at the present time by which people in rural areas can receive warning of attack. Which is correct? 3

AM radios have solved the problem of rural warning.	Rural residents and workers have no way of receiving warning of an attack.

5. The best way for people in rural areas to get warning of an attack is: 1

_____ a. to listen to their AM radios.
_____ b. to listen to warning signals from their nearest community.
_____ c. to listen to short-wave radios.
_____ d. (none of these)

6. Survival of people in rural areas is essential to the welfare of our country because: 2

1) food production must be resumed after an attack, and
2) our forests must be protected from fire.

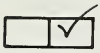
Which is correct?

After an attack, the welfare of our country is primarily dependent upon food production and protection of animals.	After an attack, food production and fighting forest fires are essential to the welfare of our country.

1

a

2



3 NEITHER (AM radios do not solve the problem of how to warn rural residents and workers. They are suggested as the best means available.)

3

7. Which lists the two reasons why the survival of people in rural areas is essential to the welfare of our country?

_____ a. 1) Production of food must be resumed after an attack.
2) Our forests must be protected from fire.

_____ b. 1) People who live and work in rural areas have more of a survival problem than those in the city.
2) Production of automobile parts must be resumed after an attack.

4

8. Two reasons why the survival of people in rural areas is essential to the welfare of our country are:

1) the production of _____ must be resumed after an attack, and
2) our _____ must be protected from _____.

1

9. Under direction of the U.S. Department of Agriculture (USDA), people in rural areas receive training in what to do during emergency conditions.
You can guess that:

USDA aids people in rural areas by teaching them how to safely resume the production of food.	USDA aids people in rural areas by teaching them how to safely protect our forests.

2

10. Which of these aids people in rural areas by teaching them what to do in emergencies?

_____ a. U.S. Department of Defense
_____ b. U.S. Department of Agriculture
_____ c. U.S. Department of Commerce
_____ d. (none of these)

1	2	3	4
BOTH	b	a	1) food 2) forests, fire

11. In case of attack, an electric generator will be needed in rural areas. For example, food stored by electric refrigeration will spoil. A brief loss of power can cause serious problems. Rural areas must be prepared to supply their own power. From this you can guess that in case of an attack:

4

a brief power loss is of little importance.	people in rural areas can supply their own power by using an electric generator.

12. Another necessity for people in rural areas is radiation-measuring equipment. It is even more important to them than to city people because their jobs require them to be outside more. You can guess that people in rural areas need radiation-measuring equipment more than city people because:

1

city people don't have to detect or measure radiation.	they are exposed to more fallout.

13. You can guess that radiation-measuring equipment is also vital to people in rural areas because:

3

they have to resume their production of food.	they have to help protect our forests from fire.

14. Which of these is a vital piece of equipment for people in rural areas?

2

radiation-measuring equipment	electric generator

1	2	3	4
NEITHER (The same amount of fallout can fall in the city as in country.)	BOTH	BOTH	☑

1

15. Animals in rural areas must be protected so as to aid in human recovery after an attack. Horses, cows, sheep, hogs, chickens, and all other useful animals must be sheltered.
Which is true?

Protection of animals is not important to human recovery.	Horses, cows, sheep, hogs, and chickens can aid in human recovery after an attack.

2

16. In rural areas, barns and sheds can provide some protection for large numbers of animals. From this you can determine that:

Usually no new structures are necessary to shield animals from fallout.	Shelters must be built in rural areas to protect animals from fallout.

3

17. Which is correct?

In rural areas, barns and sheds can provide protection for horses, cows, sheep, hogs, chickens, and other animals.	In rural areas, people must provide protection for themselves and all useful animals.

4

18. Feed and water must be supplied to all animals in shelters. Feed stored before the attack and well water would both be relatively free of fallout.
Which is true?

Do not supply animals in shelters with feed and water that was stored before an attack.	Feed and water for animals is an important aid in human recovery after an attack.

1	2	3	4
☐☑	☑☐	BOTH	☐☑

4

19. Well water for animals in shelters is preferred to water from open ponds and lakes. However, although open water will contain fallout, thirsty animals must be given water, regardless of the possibility of radioactivity.
Which is correct?

The best water for animals in shelters is well water.	Animals in shelters can be given water with fallout particles in it if there is no other.

2

20. Which is correct?

People in rural areas must protect both themselves and their animals.	In rural areas, nearly all useful animals will die after an attack since there is no way to provide them with shelter.

3

21. One of the most important jobs after an attack is fighting fire. By destroying man and property, fire can weaken our country's power to fight back.
Which is correct?

Fires are not related to civil defense.	Fire defense is an important aid to human recovery after an attack.

1

22. In rural areas, the U.S. Forest Service is responsible for directing and coordinating a program of fire defense.
Which is correct?

The Forest Service directs rural areas in fire-fighting procedures.	The Forest Service is responsible for directing one of the most important duties after a nuclear attack.

1	2	3	4
BOTH	☑☐	☐☑	BOTH

23. Which of these Federal agencies is responsible for directing and coordinating a program of rural fire defense? 1

_____ a. U.S. Department of Defense
_____ b. U.S. Department of Fires
_____ c. U.S. Department of the Army
_____ d. U.S. Department of Game and Fish
_____ e. (none of these)

---

24. Refer to "Tear-Out 6" for the next two frames. 3
Which of these correctly lists three of the "Ten Steps Toward Fire Prevention and Defense"?

1) Check electrical wiring systems.
2) Check heating units.
3) Have heavy equipment available.

1) Practice fire-safe housekeeping.
2) Set up a line of communications.
3) Establish a water supply.

---

25. Which of these is an example of Step 7? 2

Bulldozers, tractors, and cultivators parked close to the working area.

A collection of tools to fight a fire in a small shed near a house or work area.

---

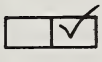
26. Refer to "Tear-Out 7" for the next two frames. 4
Which of these correctly lists the three things that must be present before a fire can start?

_____ a. fuel, air, and hot water
_____ b. fuel, heat, and hot air
_____ c. fuel, air, and heat
_____ d. (none of these)

1

e. (The Forest Service)

2



3

BOTH

4

c

27. Which is correct?

2

To put out a fire, take away either the fuel, air, or heat.	To put out a small fire, remove the burning material, put a wet blanket over it, or douse it with water.

TURN TO THE FOLLOWING PAGE AND BEGIN
THE REVIEW SECTION

1	2	3	4
	BOTH		

C. REVIEW SECTION

Use the same procedures you followed in the Pre-Test to answer the following questions.

1. Which of these applies to rural survival?

____ a. People in rural areas must provide most of their own protection.
____ b. Warning of an attack might often be late in coming because of the distance from community centers.
____ c. (both)
____ d. (neither)

2. Which of these is suggested as the best method for rural residents to receive warning of attack or other emergencies?

____ a. Short-wave radio sets
____ b. Remote television units
____ c. Standard AM radios
____ d. (none of these)

3. Why is rural survival so essential to the welfare of our country?

____ a. Rural residents usually receive word of an attack before city dwellers, and they have the responsibility of passing it on.
____ b. After an attack, food production must be resumed and our forests protected from fire.
____ c. The jobs of rural residents are more vital to the nation than the jobs of city residents.
____ d. (none of these)

4. Which of these gives training and guidance to rural residents and workers in what to do during emergency conditions?

____ a. U. S. Department of Agriculture
____ b. U. S. Department of Defense
____ c. (both)
____ d. (neither)

5. Which of these items of emergency equipment is vital to survival in most rural areas?

____ a. fallout clothing
____ b. electric motor
____ c. electric generator
____ d. (none of these)

6. Which is true concerning rural workers and their need for radiation-measuring instruments?

____ a. The need is greater than it is for city workers, since rural workers often have vital jobs outside the shelters.
____ b. The need is not as important as it is for city workers, since rural workers have less to do after an attack.
____ c. The need for city workers is greater because rural workers do not usually receive much radiation.
____ d. (none of these)

7. Which is true concerning protection of animals in rural areas?

____ a. Barns and sheds provide some protection for large numbers of animals.
____ b. All useful animals must be protected to aid in human recovery after an attack.
____ c. (both)
____ d. (neither)

8. Feed and water must be provided for all animals that are put into shelters. Which is true of these two necessities?

____ a. Hay, silage, grain, and concentrates stored before an attack would be fairly free of fallout and could be used.
____ b. Water from open ponds or lakes should be used before well water.
____ c. (both)
____ d. (neither)

9. Which of these is an important duty in rural areas following a nuclear attack or other disaster?

____ a. fire fighting
____ b. restoring communications
____ c. food control
____ d. (all of these)

10. Which of these Federal agencies helps rural areas set up a rural fire defense program?

____ a. Office of Civil Defense
____ b. Forest Service
____ c. EBS
____ d. NORAD

11. Read the following list.

1) Check electrical wiring.
2) Establish a water supply.
3) Provide asbestos clothing for family.
4) Check heating units.
5) Provide radiation-measuring instruments.
6) Practice fire-safe housekeeping.

Which of the following choices correctly identifies the steps of fire prevention and defense from the list above?

____ a. 1, 2, 4, 6
____ b. 2, 3, 5, 6
____ c. 3, 5, 6
____ d. (none of these)

12. Read the following list.

1) dirt
2) water
3) air
4) wood
5) fuel
6) heat

Which of the following choices correctly identifies the three necessary elements of a fire from the list above?

____ a. 1, 2, 5
____ b. 2, 4, 6
____ c. 3, 5, 6
____ d. (none of these)

NOW TURN TO THE FOLLOWING PAGE
AND CHECK YOUR ANSWERS

Check each of your answers.

1. c (4-1)
2. c (4-1)
3. b (4-1)
4. a (4-1)
5. c (4-1)
6. a (4-2)
7. c (4-2)
8. a (4-2)
9. d (4-2)
10. b (4-2)
11. a (Tear-Out 6)
12. c (Tear-Out 7)

If you missed a question, refer to the page number that is shown with the correct answer. This reference will tell you why your answer is wrong. For example, the page number shown with the answer to question 1 is 4-1. If you selected any choice other than c, turn to page 4-1 and find why c is the correct choice.

WHEN YOU HAVE FINISHED CHECKING YOUR ANSWERS,
TURN TO THE FOLLOWING PAGE AND BEGIN UNIT FIVE

UNIT FIVE

EMERGENCE AND RECOVERY

EMERGENCE

When to Leave: After a nuclear attack, do not leave your shelter and expose yourself to radiation unless it is essential to your survival or the survival of others. It must be a life or death matter. Some exposure to radiation may be necessary. Here are some purposes that justify leaving shelter for brief periods while radiation is still at a dangerous level:

1. To secure supplies needed to sustain life
2. To evacuate shelter in case of fire or other life-threatening emergency

What to Do

1. If you are in a home shelter and have a ratemeter, you may leave the shelter when radiation has fallen to a safe point. Do not go to other areas until local authorities have indicated it is safe to do so.
2. If you don't have a ratemeter, stay in your shelter. Leave only when local authorities tell you to.

RECOVERY

Decontamination

1. The first job in recovery is to clean up and decontaminate pre-selected areas to make them safe for living outside of shelters. Without these "clean" areas where shelter occupants can gather, work, and set up living quarters, the job of recovery cannot go on as necessary.
2. Community decontamination can be started as soon as radiation is at a safe level. Usually, this is during the second week. By this time, there is less danger of fallout particles getting on you. However, always keep yourself as free from particles as you can while working. Fallout particles may get on your clothes and in your hair. The most likely place to pick up particles is on your shoes. Keep them brushed off. Brush your hair and clothes, and clean your shoes before entering your living area.
3. Community action is the best way to do all that must be done to recover from a nuclear attack. Your help is needed in the steps toward recovery. If your community receives little fallout, you may be needed to help a neighboring community toward recovery.

4. Fallout tends to collect on horizontal surfaces such as roofs, streets, tops of vehicles, and the ground. The simplest way to clean some of these surfaces is by washing with water. To decontaminate the ground, either remove the top layer or cover the area with uncontaminated earth.

Steps in Decontaminating Areas

A. Paved Areas

1. Decontaminate with water.
2. Decontaminate roofs with water.
3. Flush the particles into ditches where they can be covered with clean earth or picked up and hauled to a dumping area.
4. Dumping areas must be at least 100 feet away from occupied areas. The ideal areas are gullies and refuse dumps.

B. Unpaved Areas

1. Decontaminate by scraping off or by plowing under a thin top layer of soil. Large open areas — use big earthmoving equipment if available. Small areas — use bulldozers, tractor scrapers, shovels, and wheelbarrows.
2. Another method is to cover the area with a layer of clean earth.
3. Scrapings from unpaved areas should be hauled to dumping areas as mentioned above.

Farm Animals as a Source of Food. Farm animals and poultry are an important source of food and must not be allowed to sicken and die from thirst or starvation. Here are some important points to remember about caring for animals and using them for food after an attack:

1. Wash and brush animals exposed to fallout to remove the particles.
2. Water from wells and streams is safe for animal use. Pond water can also be used, but can be made safer by stirring up a clay bottom and letting it settle. This takes most of the fallout particles to the bottom.
3. Feed stored under cover should be used first. If no other feed is available, turn animals out to pasture after a few days when the radioactivity has decreased.

4. Animals exposed to fallout or fed on contaminated pastures can be slaughtered and the muscle meat used for human consumption. Internal organs, such as the liver and spleen, should not be eaten unless no other food is available.

5. It is easier to preserve meat on the hoof than on the hook. Hogs and steers can be kept alive even with water and feed containing fallout particles.

6. Animals, like humans, can get radiation sickness. You will probably be given instructions on slaughtering if the radiation level in your area indicates that animal sickness may be widespread. Care must be taken in slaughtering to prevent contamination of the carcasses by fallout particles from the hides and digestive tracts.

7. Chickens and eggs that have been under cover are an important direct food source. They are resistant to radiation. Chickens raised under cover and given safe packaged feed are doubly safe.

8. Milk from cows that have grazed on contaminated pastures is radioactive, but in the absence of other food in an emergency, it can be used.

Other Food. Listed below are some important points to remember about other foods. Points 1, 5, and 7 relate specifically to the use of foods after an attack.

1. Food stored indoors is usually safe to eat. This is especially true of food in freezers and refrigerators. These appliances should be kept closed as much as possible.

2. Eat the perishable foods first, especially if electricity and gas are cut off.

3. Bread is still edible even when moldy.

4. Sour milk is drinkable.

5. Fruits and vegetables with rotten spots cut out are safe to eat. If they have been exposed to fallout, wipe, wash, and peel them. Then dispose of wash water and peelings.

6. Throw out canned foods if bubbles appear in the juices, even though they smell all right. In an emergency, most canned and packaged animal foods can be eaten by humans without harm.

7. In rural areas, potatoes, corn, and other field crops exposed to fallout are safe to eat after cleaning. Grain that has been covered, as in elevators, is safe. Threshing reduces the amount of fallout particles in grain. Threshed grain exposed to fallout should be washed.

Water. These are important points to remember regarding water after an attack:

1. Water from open sources such as lakes, ponds, and reservoirs must be purified unless authorities pronounce it safe.
2. To get rid of fallout and dirt particles, strain cloudy or unclear water through a paper towel or several thicknesses of clean cloth. It can also be allowed to settle in a deep container and then siphoned off.
3. After straining, water can be freed of germs with water-purification tablets or by boiling it for a few minutes. Another method is adding 20 drops of iodine to a gallon of clear water or 40 drops to a gallon of cloudy water. Then let it stand for 30 minutes. Liquid household bleaches of the sodium hypochlorite type can also be used. The label usually gives instructions.
4. Radiation itself does not affect water. It is only the radioactive particles that make the water dangerous to humans and animals. Here are three ways to decontaminate water:
   a. The simple filtering process with paper towels or cloth described above.
   b. Run the water through a home water softener.
   c. Mix a handful of clay soil with each gallon of water and allow it to settle out over a period of a day. This takes the particles to the bottom and clear water can be poured off the top.

TURN TO THE FOLLOWING PAGE AND BEGIN
THE TEACHING SECTION

3

1. After a nuclear attack, do not leave your shelter and expose yourself to radiation unless it is necessary for your survival or the survival of others. It must be a life or death matter. Which is an example of this rule?

Charlie and his family have been in their shelter for a week and everyone is getting bored. Charlie wants to get a book from the house but he decides not to because of the harmful radiation.

Sam and his family have been in their shelter for a week. Sam's youngest boy is a diabetic. Sam goes to his house for some medicine for his boy that he forgot to pack in their first aid kit. On the way, he is exposed to harmful rays of radiation.

1

2. Do not leave your shelter and expose yourself to radiation after an attack unless:

you want to go out and look at the damage.

it is necessary for your survival or the survival of others.

2

3. Here are some purposes that may justify leaving a shelter and exposing yourself to limited amounts of radiation:

1) To secure supplies needed to sustain life
2) To evacuate shelter in case of fire or other emergency

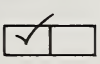
Which is correct?

These purposes are examples of things that may be necessary for your survival or the survival of others.

It is all right to leave a shelter to get a breath of fresh air.

1

2



3 BOTH (Charlie didn't risk exposure since the book wasn't necessary for his welfare. Sam had to get the medicine for the welfare of his son.)

4. Refer to the list in frame 3 for this question. Which of these is an example of a purpose that may justify leaving a shelter? 3

One of the shelter occupants gets radiation sickness and the rest of the people want to evacuate so they will not catch it.	A crew of men from the shelter go out each day for a short time to get safe drinking water.

5. Which of these may be a reason for leaving a shelter and exposing yourself to a limited amount of radiation? 2

A fire breaks out in the shelter.	To get fresh food because everyone is tired of canned foods

6. The items in frame 3 are the main reasons for exposing yourself to radiation after a nuclear attack. They all fall into the category of things that are necessary for YOUR SURVIVAL OR THE SURVIVAL OF OTHERS. You can guess that: 4

You should never leave a shelter unless it is for one of the reasons given in frame 3.	You may have to leave a shelter for other reasons that are necessary for your survival or the survival of others.

7. Which is correct? 1

After a nuclear attack, the most dangerous thing is fallout and the radiation from fallout particles.	Do not leave your shelter after a nuclear attack exposing yourself to radiation, unless it is necessary for your survival or the survival of others.

1	2	3	4
BOTH			

3

8. If you are in a home shelter and have a ratemeter, you may leave the shelter when radiation has fallen to a safe level. Do not go to other areas until local authorities have indicated it is safe to do so.
When radiation is at a safe level at your shelter, it is:

also safe in the rest of the community.	not necessarily safe in other parts of the community.

1

9. Which is correct?

If you have a ratemeter, do not leave your shelter until it indicates a safe level of radiation.	Leave your shelter immediately to help your neighbors in community decontamination.

2

10. If you do not have a ratemeter, stay in your shelter until you are advised to leave. Advice on when to leave will come over your radio or from your local authorities.
Which of these describes what you should do if you do not have a ratemeter?

You should join your neighbors to assist as directed by authorities.	Even though your help may be needed, do not leave your shelter until advised to do so.

4

11. Which is correct?

If you can measure the intensity of radiation, join your neighbors as soon as it is safe at your shelter.	If you cannot measure the intensity of radiation, stay in your shelter until advised to leave.

1	2	3	4
☑☐	☐☑	☐☑	☐☑

12. Community decontamination can be started as soon as radiation is at a safe level. This may be during the second week after attack. Which is correct?

1

Community decontamination must be started in the second week after attack.	Community decontamination may be started during the second week if radiation is at a safe level.

13. During the second week after attack, there is usually less danger of fallout particles getting on you during decontamination procedures. However, you still should keep yourself as clean as possible while working.
Which is correct?

4

You can leave your shelter and start decontamination in the second week as long as you keep yourself clean.	Radioactive decay does not start until two weeks after an attack.

14. Which is correct?

2

As soon as it is safe, join your neighbors in community decontamination.	It may be safe to start decontamination during the second week after an attack.

15. In contaminated areas, fallout particles will get on your clothes, in your hair, and on your shoes. In order to keep the living area as free of radioactive materials as possible, you will:

3

use a separate living area set up for the people who are helping decontaminate an area.	brush and clean yourself before you reenter the living area.

1 ☑

2 BOTH

3 ☑

4 NEITHER [You can leave your shelter only when the radiation measures at a safe level or when you are advised that it is safe. Radioactive decay begins right after a nuclear explosion. As time passes, radiation is reduced. (Units One and Two).]

16. Which is true? 2

Radioactive decay is not an important factor in deciding when to leave your shelter.	Keep yourself as clean as possible while working on decontamination and brush off your shoes before entering your living area.

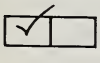
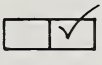
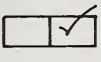
17. When you have been helping to decontaminate an area, you must brush and clean your _____, _____, and _____ before you reenter the living area. 4

18. Recovery from nuclear attack is best accomplished through community action.
This means that: 3

every person should do his own job at home and not bother others in the community.	everyone should pitch in and help each other.

19. The first job in recovery is to decontaminate areas chosen as temporary living quarters. These areas must be made safe for occupation after shelters are vacated.
Which is correct? 1

People need decontaminated areas to move into after leaving their shelters.	Radiation is not a problem when deciding to leave a shelter.

1	2	3	4
			hair, clothes, shoes

20. Fallout tends to collect on horizontal surfaces such as roofs, streets, tops of vehicles, and the ground. A simple way to clean some of these surfaces is by washing with water. Ground areas may be covered with uncontaminated earth, or be scraped to remove the top layer of soil.
Which is correct?

1

Only roofs and the ground need to be decontaminated.	Earthmoving equipment and water are used to decontaminate an area.

21. Refer to "Steps in Decontaminating Areas," page 5-2, for the next four frames.
Which of these describes proper decontamination procedures?

2

Roofs can be decontaminated by washing with water.	Paved areas can be swept with brooms and washed with buckets of water.

22. Which of these should be done after fallout particles have been washed into ditches?

4

They can be covered with clean earth or picked up and hauled to a dumping area.	If they are picked up, they should be hauled to a dump area that is at least 10 feet away from any occupied area.

1	2	3	4 ☑
☑	BOTH		(The dump area must be 100 feet away from any occupied area.)

23. Which of these describes decontamination procedures in unpaved areas? 4

Scrape off the top layer of soil.	Plow under a thin top layer of soil.

24. Which is correct? 3

Scrapings from unpaved areas should be hauled to dumps that are at least 100 feet away from any occupied area.	Besides scraping, another method of decontaminating unpaved areas is to cover them with a layer of clean earth.

25. Refer to "Farm Animals as a Source of Food," pages 5-2 and 5-3 for the next six frames. Which is correct? 1

Farm animals and poultry are not an important source of food after an attack since they would all be contaminated.	Farm animals and poultry can be used for food after an attack without any special care.

1	2	3	4
NEITHER (Even though some of them would be contaminated, they are still an important source of food. Special care is important to keep them alive and rid them of contamination before human consumption.)		BOTH	BOTH

26. Which of these describes what must be done to animals that have been exposed to fallout before they are safe to use as food? 2

They must be cured of radiation sickness.	They must be washed and brushed.

27. Which is correct? 4

Pond water can be used for animals after an attack when fallout particles have settled to the bottom.	Well water must be decontaminated before giving it to animals.

28. Which is correct? 1

After slaughtering, the muscle meat of contaminated animals can be eaten by humans without fear of radiation.	After slaughtering, the internal organs of contaminated animals should not be eaten unless no other food is available.

29. After a nuclear attack: 3

it is easier to preserve animals while they are alive than after they are slaughtered.	all animals to be used for food should be slaughtered immediately.

1	2	3	4
BOTH	☐☑	☑☐	☑☐

30. Which is correct? 3

Chickens and eggs are easily affected by radiation and are not a good source of food.	Milk from cows that have grazed on contaminated pastures is radioactive and can never be used.

31. Refer to "Other Food," page 5-3, for the next four frames. Which of these is an important point to remember about other food after a nuclear attack? 2

_____ a. Only the food in freezers and refrigerators is safe to eat.
_____ b. Fruits and vegetables with rotten spots will contain radioactive material.
_____ c. Eat perishable foods first.
_____ d. (all of these)

32. Which is correct? 4

If canned foods smell all right after opening, they are not contaminated.	Both moldy bread and sour milk can be used for food.

33. In rural areas, potatoes, corn, and other field crops exposed to fallout: 1

must be destroyed.	must be cleaned before eating.

1	2	3	4
☐☑	c	NEITHER (Chickens and eggs are highly resistant to radiation and a good source of food. Radioactive milk would be better than nothing at all.)	☐☑

34. Which is correct? 3

Contaminated fruits and vegetables should be wiped, washed, and peeled before eating.	Food from your pantry or kitchen shelves is usually not contaminated.

35. Refer to "Water," page 5-4, for the next six frames. Which is correct? 1

Well water is safer than water from open sources, such as lakes, ponds, and reservoirs.	Water from open sources is usually contaminated with fallout particles.

36. Which is correct? 2

Water from open sources can be contaminated with fallout or with germs.	The procedure for getting fallout particles out of water also gets rid of the germs.

37. Which of these is a procedure for getting rid of fallout and dirt particles in water? 4

Strain it through a paper towel or several thicknesses of clean cloth.	Boil it for a few minutes.

1	2	3	4 ☑
BOTH	☑	BOTH	(Boiling will not get rid of fallout particles in water)

38. Which of these is a procedure for getting rid of germs in water? 1

Boil for a few minutes or add water-purification tablets.	Add iodine.

39. Which of these is a method of getting rid of fallout in water? 4

_____ a. Running it through a home water-softener
_____ b. Boiling it for a few minutes
_____ c. Adding iodine
_____ d. (all of these)
_____ e. (none of these)

40. Which is correct? 3

Once water is contaminated with fallout, the radiation stays in the water even after decontamination.	Water contaminated with fallout is not dangerous to humans.

TURN TO THE FOLLOWING PAGE AND BEGIN THE REVIEW SECTION

1 BOTH

2

3 NEITHER (When the fallout particles are removed by the various methods listed, it contains no radiation. With the particles in it, however, it is dangerous.)

4 a

C. REVIEW SECTION

Use the same procedures you followed in the Pre-Test to answer the following questions.

1. After a nuclear attack, do not leave your shelter and expose yourself to radiation unless:

   ____ a. it is necessary for your survival or the survival of others.
   ____ b. you want to check the damage.
   ____ c. (both)
   ____ d. (neither)

2. Which purpose may justify leaving a shelter and exposing yourself for a short time to radiation?

   ____ a. To obtain medical supplies for treatment of serious injury
   ____ b. To secure supplies needed to sustain life
   ____ c. There is a fire in the shelter.
   ____ d. (all of these)

3. If you are in a home shelter and have a ratemeter:

   ____ a. go to your local school, shopping area, or other designated gathering place and start decontamination.
   ____ b. wait until the radiation falls to a safe level before leaving the shelter.
   ____ c. wait until advised to leave by local authorities.
   ____ d. (none of these)

4. If you do not have a ratemeter:

   ____ a. stay in your shelter until you are advised to leave by local authorities.
   ____ b. go outside and check the radiation intensity with your dosimeter.
   ____ c. wait until the second day before leaving.
   ____ d. (none of these)

5. When can community decontamination usually be started?

   ____ a. During the second day after attack
   ____ b. As soon as radiation has reached a safe level
   ____ c. Not until after two months
   ____ d. (none of these)

6. When working in contaminated areas, you are likely to pick up fallout particles:

   ____ a. in your hair.
   ____ b. on your clothes.
   ____ c. on your shoes.
   ____ d. (all of these)

7. The best way to complete the job of recovering from a nuclear attack is through:

____ a. community action.
____ b. individual action.
____ c. Federal action.
____ d. (none of these)

8. The first job in recovery is to:

____ a. repair all living quarters in the community.
____ b. clean up preselected areas to make them safe for living and working outside of shelters.
____ c. restore communications with other communities.
____ d. (none of these)

9. Which is true of decontamination procedures?

____ a. Roofs can be decontaminated with water.
____ b. Unpaved areas can be decontaminated by scraping off or by plowing under a thin top layer of soil.
____ c. (both)
____ d. (neither)

10. Animals exposed to fallout:

____ a. can be washed or brushed to remove fallout particles.
____ b. will have to be killed since there is no way to rid them of fallout particles.
____ c. will be unsafe to keep around no matter what is done to clean them off.
____ d. (none of these)

11. Which of these is true of farm animals as a source of food during recovery?

____ a. Chickens and eggs that have been under cover will be an important direct food source.
____ b. Milk from cows that have grazed on contaminated pastures will be radioactive and should never be used.
____ c. (both)
____ d. (neither)

12. After a nuclear attack:

____ a. food stored indoors is usually safe to eat.
____ b. be sure to eat all perishable foods first, then the canned foods.
____ c. (both)
____ d. (neither)

13. Which is true of food after a nuclear attack?

____ a. If fruits and vegetables have been exposed to fallout, wipe, wash, and peel them before eating.
____ b. Throw out canned foods if bubbles appear in the juices, even though they may smell all right.
____ c. (both)
____ d. (neither)

14. Which is true regarding use of water from open sources such as lakes or reservoirs after an attack?

____ a. Water from these sources can always be used without purification.
____ b. Radiation itself does not affect water.
____ c. (both)
____ d. (neither)

15. Which is true?

____ a. The radioactivity in water can be reduced by adding iodine.
____ b. A simple filtering process with paper or cloth will clear water of radioactive particles enough to make it drinkable.
____ c. (both)
____ d. (neither)

NOW TURN TO THE FOLLOWING PAGE
AND CHECK YOUR ANSWERS

Check each of your answers.

1. a (5-1)
2. d (5-1)
3. b (5-1)
4. a (5-1)
5. b (5-1)
6. d (5-1)
7. a (5-1)
8. b (5-1)
9. c (5-2)
10. a (5-2)
11. a (5-3)
12. c (5-3)

(continued on following page)

13. c (5-3)

14. b (5-4)

15. b (5-4)

If you missed a question, refer to the page number that is shown with the correct answer. This reference will tell you why your answer is wrong. For example, the page number shown with the answer to question 1 is 5-1. If you selected any choice other than a, turn to page 5-1 and find why a is the correct choice.

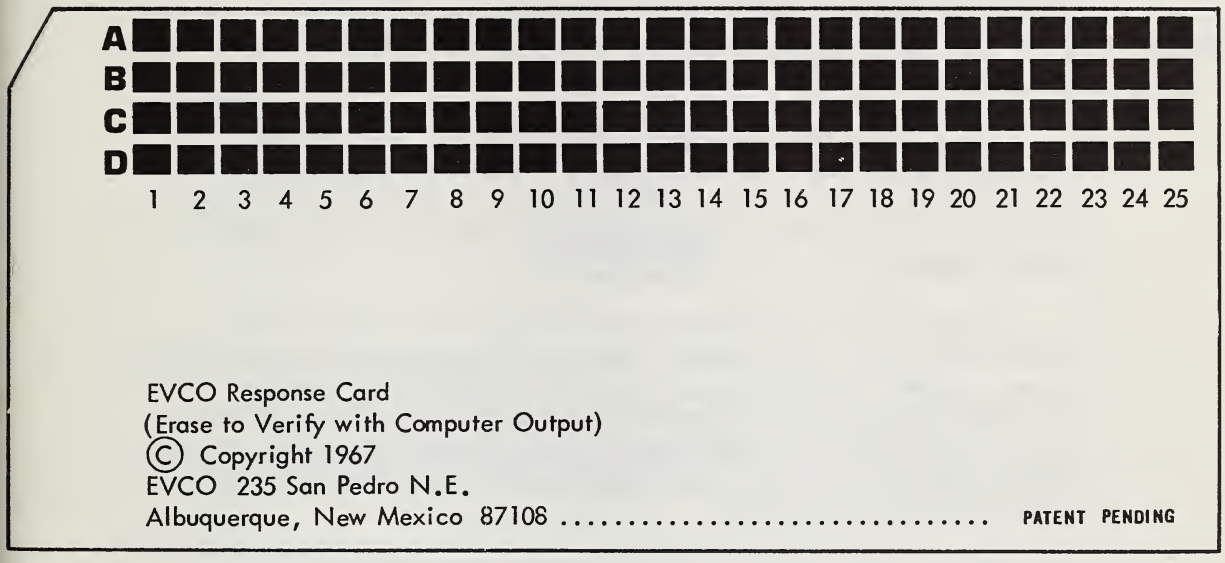
You have completed the programed text. Be sure to fill in Tear-Outs 5 and 8. If you wish to review the material in this program, you will find it useful to complete Part III, the Progressive Referral Questions.

PART THREE

PROGRESSIVE REFERRAL QUESTIONS

INSTRUCTIONS

The self-administered questions on the following pages both TEACH and TEST. The items that make up this sequence follow the instructional materials developed in the program. Remove Card 1 from the envelope (see inside back cover) that accompanies the program. Notice that the card has space for 25 questions. Each question has choices A, B, C, and D. Notice also that each choice is "blanked out" with an overprint of ink.



Follow these steps to answer the questions:

1. READ the first question and decide which answer is correct.

2. After you have decided on your answer, erase the ink over your choice (a, b, c, or d) for that question on the response card.

3. If your answer is TRUE (correct), you will see a "T." If not, you will see a number. These numbers mean your choice is partially correct or false. If you uncover a number, refer to it in the Referral Section at the end of this section, and find the explanation of why you were not completely correct in your choice.

TURN TO THE FOLLOWING PAGE AND BEGIN

FREE TRIAL -- Before answering this question, erase the ink over all four choices for question 1.

1. Which of these statements is correct?

   a. The basic goal of Civil Defense is to save as many lives as possible in case of nuclear attack.
   b. The basic goal of Civil Defense is carried out through a program of fallout shelter development.
   c. (both)
   d. (neither)

NOTE: A "T" for "true" appears under choice c on the response card. Therefore, "c. (both)" is the correct answer to the question.

The number "31" appears under choice d. Turn to the Referral Section and find number "31." This reference tells you that your choice is incorrect and refers you to the location of the material covering the question. Read the material, then pick another answer.

Under choice a you have uncovered an "11." Turn to the Referral Section. If you chose answer a you would have accepted a correct answer, but at the same time you would have rejected b which is also correct. Therefore, your response to the question is only partially correct. This time you do not have to choose another answer, but are referred to the material that will explain the portion of the question you missed.

Under choice b you have uncovered a "63." Turn to the Referral Section. Even though b is correct, a is also correct. Therefore, your answer is only partially correct. Again, you will be directed to the material that will explain the portion of the question you missed, but you do not choose another answer. Be sure to read each referral item completely.

Now read this question.

2. Which of these is a correct statement concerning Civil Defense?

   a. The main objective of the Civil Defense Fallout Shelter Program is a shelter space for everyone, within reach, wherever they may be.
   b. The Office of Civil Defense suggests establishing fallout shelters in rural areas only.
   c. (both)
   d. (neither)

3. If you were looking for a community fallout shelter, which of these signs would you look for?

   a. 

   b. 

   c. (both)
   d. (neither)

4. Which of these definitions is correct?

   a. ONE-KILOTON NUCLEAR WEAPON — a nuclear weapon with destructive capability equal to one million tons of TNT.
   b. ONE-MEGATON NUCLEAR WEAPON — a one-thousand-ton TNT bomb.
   c. (both)
   d. (neither)

5. Which of these definitions is correct?

   a. ATOMIC ENERGY — the fallout released by an explosion of TNT.
   b. NUCLEAR WEAPONS — weapons in which the explosion results from the energy released by atomic reaction.
   c. (both)
   d. (neither)

6. Which of these is a true statement?

   a. Fallout shelters or the supplies from them are also useful for emergencies such as floods, fires, hurricanes, and tornadoes.
   b. The term GROUND ZERO means the point on the ground where the effects of a nuclear explosion are nothing, or zero.
   c. (both)
   d. (neither)

7. Which of these is a correct definition?

   a. NUCLEAR RADIATION — invisible rays of energy that cannot be felt but may be harmful to the human body.
   b. INITIAL NUCLEAR RADIATION — the initial burst of radiation that is sent out from a nuclear explosion within the first minute after detonation.
   c. (both)
   d. (neither)

8. Which of these definitions is correct?

   a. ROENTGEN — the emission of radiation.
   b. EARLY FALLOUT — fallout that occurs early in the day.
   c. (both)
   d. (neither)

9. Which of these is a true statement?

   a. The BLAST WIND from a nuclear explosion is a sudden strong push of air created by the explosion.
   b. The BLAST WAVE from a nuclear explosion describes the sudden movement of water in an underwater explosion.
   c. (both)
   d. (neither)

10. Which of these statements is correct?

   a. CONTAMINATION is the deposit of radioactive material on areas, objects, and people following a nuclear explosion.
   b. RADIATION SICKNESS is measured with a ratemeter.
   c. (both)
   d. (neither)

11. Which of these is the term that describes the decrease in the radioactivity of material as time passes?

   a. ROENTGEN
   b. RADIOACTIVE DECAY
   c. (both)
   d. (neither)

12. Which of these statements is correct?

   a. Warfare involving biological weapons is considered the most dangerous to man.
   b. In chemical warfare, the product most dangerous to man is fallout.
   c. (both)
   d. (neither)

13. Which of these is a factor that determines the extent of fallout from a nuclear explosion?

a. Energy yield
b. Altitude of the bomb burst
c. (both)
d. (neither)

14. In which of these instances would the person be most likely to come down with a severe case of radiation sickness?

a. A man working on decontamination projects receives a total radiation dosage for one day amounting to 300 roentgens.
b. A man cannot get to his shelter in time and receives a dose of 100 roentgens of radiation within a period of 10 minutes.
c. (both)
d. (neither)

15. Which of these statements is true regarding radiation?

a. A ratemeter measures the direction from which the radiation is coming; a dosimeter measures the intensity of the radiation.
b. Radiation pills and practical protective clothing are the best means of protection from radiation.
c. (both)
d. (neither)

16. Which of these statements regarding fallout is true?

a. Persons, places, or things are "radioactive" only as long as they have fallout particles on them. Once the particles are removed, they are no longer radioactive.
b. Harmful radiation is entering your body as long as fallout particles remain on you.
c. (both)
d. (neither)

17. Which of these statements is correct concerning our country's warning network in time of attack?

a. An approaching enemy missile or plane would be detected by OCD and they would alert our military forces to strike back.
b. Warning of attack would go out from OCD over the National Warning System to 500 warning points at State and local levels.
c. (both)
d. (neither)

18. Which of these describes the attack warning signal?

a. A wavering tone on a siren or short blasts on a horn for three to five minutes.
b. Listen for essential emergency information.
c. (both)
d. (neither)

19. If you were attempting to protect yourself from fallout and its harmful radiation, which of these methods would be helpful?

a. Decontaminating yourself whenever you have been in a fallout area.
b. Put as much shielding as possible between you and the fallout.
c. (both)
d. (neither)

20. At least one AM radio station in a city is chosen to stay on the air in time of an emergency and transmit official information and instructions. This communications system is known as:

a. NORAD
b. Civil Defense Warning Signals.
c. (both)
d. (neither)

21. If you were caught out in the open when a nuclear explosion occurred and you did not have enough time to get to shelter, which of these should you do?

a. Put your hands over the back of your neck and tuck your knees up against your chest.
b. Lie down on your side and curl up, back to the blast.
c. (both)
d. (neither)

22. Which of these men is following OCD's recommendations for supplying a fallout shelter?

a. Mr. Howard builds in a hand-operated air blower to provide ventilation in his shelter. He then stocks enough water to supply a gallon per day for each member of his family for two weeks. His food supply is for two weeks.
b. After rigging up an adequate ventilation system, Mr. Phillips stocks his shelter with enough food to last his family for two weeks. His water supply consists of one five-gallon container.
c. (both)
d. (neither)

23. Which of these statements is true concerning fallout shelters?

a. The safest place for a home shelter is in the kitchen.
b. Shelters should be stocked with enough food and water to last two weeks.
c. (both)
d. (neither)

24. Which of these men is following one of OCD's recommended methods of improvising fallout protection?

a. Mr. Robertson props a door up against the outside of his house. Then he piles dirt on top and around it before crawling in under it.
b. Mr. McClure piles sand-filled boxes around and on top of a work bench in a corner of his basement. He then takes shelter underneath the bench.
c. (both)
d. (neither)

25. In a small shelter, good sanitation is a matter of life or death. Diseases such as typhoid, dysentery, and diarrhea can kill as surely as blast or radiation. Which of these is true regarding sanitation?

a. As soon as possible, body wastes and garbage should be buried under 12 to 24 inches of earth.
b. The only equipment necessary for adequate sanitation is a large garbage can with cover and some insecticides.
c. (both)
d. (neither)

Return Card 1 to the Envelope. Take out Card 2.

1. An important necessity in a shelter is the control of insects, rats, and mice. Which of these methods would best take care of this job?

   a. Paint or spray the shelter with a five percent solution of DDT or other insecticide as soon as local authorities say to take shelter following an attack.
   b. After several days in the shelter, spray the area thoroughly with an insecticide.
   c. (both)
   d. (neither)

2. Which is true?

   a. An OUTLINE FOR FAMILY EMERGENCY PLANNING should be filled out for the purpose of designing and building a family fallout shelter.
   b. An OUTLINE FOR FAMILY EMERGENCY PLANNING is helpful in preparing a family for emergencies.
   c. (both)
   d. (neither)

3. Which of these statements is true concerning rural survival?

   a. People in rural areas must provide most of their own protection from nuclear attack and usually the only means that they have of receiving warning is standard AM radios.
   b. Rural survival is essential to the welfare of our country because the jobs of rural residents are more vital to the nation than those of city residents.
   c. (both)
   d. (neither)

4. In choosing a food supply for your shelter, which of these guidelines would you follow?

   a. Select familiar foods that will last for months without refrigeration and can be served without cooking.
   b. Pick cans and packages of size that will serve only one meal at a time for your family.
   c. (both)
   d. (neither)

5. Which of these statements is true concerning protection of animals in rural areas?

   a. Animals do not aid in human recovery after an attack, and therefore are not an important concern.
   b. If water is given to animals after an attack, it should be taken first from open ponds or lakes, then from wells. This way the contamination in the well water can be allowed to settle.
   c. (both)
   d. (neither)

6. People in rural areas must be prepared to aid human recovery after a nuclear attack by:

   a. taking steps to prevent flooding.
   b. resuming food production.
   c. (both)
   d. (neither)

7. Which of these Federal agencies is particularly concerned with aiding and training rural residents for emergencies?

   a. The U.S. Forest Service
   b. The U.S. Department of Commerce
   c. (both)
   d. (neither)

8. Which of these items of emergency equipment is important in most rural areas after a nuclear attack?

   a. Radiation-measuring instruments
   b. Electric generator
   c. (both)
   d. (neither)

9. Which of these preparations is recommended when there is a flood warning for your area?

   a. Pack dishes, canned goods, and household supplies in baskets and other containers. Then store them in your fallout shelter.
   b. Close and board up all windows except one or two on the side of the house away from the path of the flood.
   c. (both)
   d. (neither)

10. Which of these is a fire-prevention practice that is particularly important in a rural area?

    a. Construct fire lanes around fields and through woodlands.
    b. Establish a dependable water supply.
    c. (both)
    d. (neither)

11. Which of these statements is true concerning natural disasters and fallout shelters?

    a. Building and stocking a fallout shelter can pay off in times of other emergencies. Shelter supplies can be used in times of flood, and the shelter itself provides excellent protection from such disasters as hurricanes, tornadoes, and fires.
    b. OCD recommends that people living in areas where floods and fires are common should build fallout shelters to give themselves the best protection.
    c. (both)
    d. (neither)

12. Which of these activities is recommended when there is a hurricane warning for your area?

    a. If you are at home, you should park your car in the garage or away from trees and poles. Then take any outside furniture or equipment inside, or tie it down securely.
    b. Shut off electricity and gas at main switches.
    c. (both)
    d. (neither)

13. The biggest danger in leaving your shelter too early comes from:

    a. initial nuclear radiation.
    b. the fact that you might get caught in the radioactive decay that follows a nuclear explosion.
    c. (both)
    d. (neither)

14. Which of these activities is recommended when there is a tornado alert in your area?

    a. Establish a water supply.
    b. Go to your shelter or the southwest corner of your basement.
    c. (both)
    d. (neither)

15. Which of these is true?

a. At least one member of every family or group of workers should take training in first aid.
b. The Red Cross is the only agency that provides training in first aid.
c. (both)
d. (neither)

16. Community decontamination can usually be started:

a. as soon as radiation has dropped to a safe level.
b. during the second week after a nuclear attack.
c. (both)
d. (neither)

17. Which of these is a reason that justifies leaving a shelter before the danger from fallout has dropped to a minimum?

a. To secure additional food supplies because you are worried that a two-week supply will not be enough
b. To secure some additional clothing from your home since the clothes you have been wearing are dirty
c. (both)
d. (neither)

18. If you are in your shelter shortly after a nuclear attack and can't decide whether to leave or not, which of these guides should you follow?

a. Wait two hours. By this time, it will be safe to leave the shelter and to begin recovery actions.
b. Do not leave unless it is essential to your survival or the survival of others.
c. (both)
d. (neither)

19. Which is correct?

a. Begin decontamination activities when your ratemeter indicates the radiation has dropped to a safe level.
b. Community decontamination can be started as soon as radioactive decay has stopped.
c. (both)
d. (neither)

20. Which is true of area decontamination?

a. Paved areas can be decontaminated with water.
b. Unpaved areas can be decontaminated by scraping off or by plowing under a thin top layer of soil.
c. (both)
d. (neither)

21. Which is true of decontamination?

a. Individual action is the best way to complete the job of decontamination, since it is not good to have too many people together in a group. Radiation affects a group of people faster than it does individuals.
b. The best places to start are homes and stores.
c. (both)
d. (neither)

22. Which is true regarding sources of food after a nuclear attack?

a. Chickens and eggs will not be good sources of food since they contaminate easily.
b. Canned foods left indoors will usually be safe to eat.
c. (both)
d. (neither)

23. After working on decontaminating an area, you should:

a. clean your hair, clothes, and shoes before entering your living area.
b. spend one day away from work so that radioactive decay can take care of any radiation that might have entered your body.
c. (both)
d. (neither)

24. In rural areas, animals — as well as some fruits and vegetables — will be exposed to fallout. Which is true concerning this danger?

a. Fruits and vegetables that have been wiped, washed, and peeled will be safe to eat.
b. Animals can be washed or brushed off to decontaminate them.
c. (both)
d. (neither)

25. Which is true of water after an attack?

a. Water can be freed of germs by adding one teaspoon of salt and one half teaspoon of soda to each quart of water.
b. Boil the water to get rid of the radioactive materials.
c. (both)
d. (neither)

You have now completed the Progressive Referral Questions. Be sure to fill in Tear-Outs 5 and 8.

PROGRESSIVE REFERRAL

ANSWERS

1. Only b is incorrect. Refer to page 3-7. Find why a is correct.
2. Only a is incorrect. Refer to page 1-1. Find why b is correct.
3. Incorrect. Refer to page 1-3. Select another answer.
4. Both a and b are correct. Refer to page 1-3. Find why b is correct.
5. Incorrect. Refer to page 2-1. Select another answer.
6. Incorrect. Refer to page 1-3. Select another answer.
7. Only a is correct. Refer to page 1-5. Find why b is incorrect.
8. Incorrect. Refer to pages 1-4 and 1-5. Select another answer.
9. Only a is correct. Refer to page 3-7. Find why b is incorrect.
10. Only b is incorrect. Refer to page 1-1. Find why a is correct.
11. Both a and b are correct. Refer to page 1-1. Find why b is correct.
12. Only b is incorrect. Refer to page 1-5. Find why a is correct.
13. Only a is correct. Refer to page 1-1. Find why b is incorrect.
14. Incorrect. Refer to page 1-1. Select another answer.
15. Neither a nor b is correct. Refer to page 2-8. Find why b is incorrect.
16. Only a is correct. Refer to page 3-6. Find why b is incorrect.
17. Incorrect. Refer to page 2-6. Select another answer.
18. Both a and b are correct. Refer to page 3-3. Find why a is correct.
19. Both a and b are correct. Refer to page 2-3. Find why b is correct.
20. Only b is correct. Refer to page 1-5. Find why a is incorrect.
21. Incorrect. Refer to page 2-8. Select another answer.
22. Neither a nor b is correct. Refer to page 2-1. Find why a is incorrect.
23. Incorrect. Refer to page 1-2. Select another answer.
24. Incorrect. Refer to page 1-5. Select another answer.

25. Neither a nor b is correct. Refer to page 2-8. Find why a is incorrect.

26. Neither a nor b is correct. Refer to page 1-3. Find why a is incorrect.

27. Neither a nor b is correct. Refer to page 1-5. Find why a is incorrect.

28. Only b is incorrect. Refer to page 1-1. Find why a is correct.

29. Neither a nor b is correct. Refer to page 2-1. Find why b is incorrect.

30. Both a and b are correct. Refer to page 3-3. Find why b is correct.

31. Incorrect. Refer to page 1-1. Select another answer.

32. Only b is correct. Refer to page 1-1. Find why a is incorrect.

33. Only a is incorrect. Refer to page 2-7. Find why b is correct.

34. Only a is correct. Refer to page 1-3. Find why b is incorrect.

35. Neither a nor b is correct. Refer to page 1-2. Find why b is incorrect.

36. Incorrect. Refer to page 2-8. Select another answer.

37. Both a and b are correct. Refer to page 1-3. Find why a is correct.

38. Both a and b are correct. Refer to page 2-3. Find why a is correct.

39. Incorrect. Refer to page 1-1. Select another answer.

40. Only a is incorrect. Refer to page 1-2. Find why b is correct.

41. Only a is incorrect. Refer to page 1-5. Find why b is correct.

42. Neither a nor b is correct. Refer to page 1-4. Find why b is incorrect.

43. Incorrect. Refer to page 3-4. Select another answer.

44. Only b is correct. Refer to page 3-4. Find why a is incorrect.

45. Both a and b are correct. Refer to page 2-6. Find why a is correct.

46. Both a and b are correct. Refer to page 3-5. Find why a is correct.

47. Only b is correct. Refer to page 1-2. Find why a is incorrect.

48. Only b is incorrect. Refer to page 2-8. Find why a is correct.

49. Only b is incorrect. Refer to page 2-3. Find why a is correct.

50. Both a and b are correct. Refer to page 2-5. Find why a is correct.

51. Incorrect. Refer to page 3-5. Select another answer.

52. Only b is incorrect. Refer to page 3-6. Find why a is correct.

53. Neither a nor b is correct. Refer to page 1-2. Find why a is incorrect.

54. Incorrect. Refer to pages 2-4 and 2-5. Select another answer.

55. Incorrect. Refer to page 1-3. Select another answer.

56. Incorrect. Refer to page 1-2. Select another answer.

57. Only a is incorrect. Refer to page 3-6. Find why b is correct.

58. Both a and b are correct. Refer to page 3-5. Find why b is correct.

59. Only a is correct. Refer to page 2-3. Find why b is incorrect.

60. Incorrect. Refer to page 3-7. Select another answer.

61. Incorrect. Refer to page 3-3. Select another answer.

62. Neither a nor b is correct. Refer to page 2-4. Find why a is incorrect.

63. Both a and b are correct. Refer to page 1-1. Find why a is correct.

64. Incorrect. Refer to page 2-7. Select another answer.

65. Incorrect. Refer to page 3-6. Select another answer.

66. Incorrect. Refer to page 2-3. Select another answer.

67. Neither a nor b is correct. Refer to page 1-3. Find why b is incorrect.

68. Both a and b are correct. Refer to page 2-5. Find why b is correct.

69. Incorrect. Refer to page 1-5. Select another answer.

70. Only b is correct. Refer to page 2-7. Find why a is incorrect.

71. Incorrect. Refer to page 2-5. Select another answer.

72. Only a is correct. Refer to page 2-8. Find why b is incorrect.

73. Incorrect. Refer to page 2-3. Select another answer.

74. Both a and b are correct. Refer to page 2-6. Find why b is correct.

75. Neither a nor b is correct. Refer to page 2-5. Find why b is incorrect.

1. Only b is incorrect. Refer to page 3-20. Find why a is correct.
2. Incorrect. Refer to page 5-1. Select another answer.
3. Both a and b are correct. Refer to page 5-2. Find why a is correct.
4. Only b is correct. Refer to page 3-9. Find why a is incorrect.
5. Incorrect. Refer to page 5-2. Select another answer.
6. Neither a nor b is correct. Refer to page 5-1. Find why a is incorrect.
7. Incorrect. Refer to page 5-1. Select another answer.
8. Both a and b are correct. Refer to page 4-1. Find why b is correct.
9. Only b is correct. Refer to page 3-9. Find why a is incorrect.
10. Both a and b are correct. Refer to page 4-2. Find why a is correct.
11. Only b is correct. Refer to page 4-1. Find why a is incorrect.
12. Incorrect. Refer to pages 4-1 and 4-2. Select another answer.
13. Neither a nor b is correct. Refer to page 4-2. Find why b is incorrect.
14. Neither a nor b is correct. Refer to page 5-4. Find why b is incorrect.
15. Only b is incorrect. Refer to page 3-9. Find why a is correct.
16. Incorrect. Refer to page 3-8. Select another answer.
17. Both a and b are correct. Refer to page 3-6. Find why a is correct.
18. Only a is correct. Refer to page 4-1. Find why b is incorrect.
19. Neither a nor b is correct. Refer to page 3-8. Find why b is incorrect.
20. Both a and b are correct. Refer to page 5-1. Find why b is correct.
21. Only b is incorrect. Refer to page 5-1. Find why a is correct.
22. Incorrect. Refer to page 3-9. Select another answer.
23. Incorrect. Refer to page 5-4. Select another answer.
24. Neither a nor b is correct. Refer to page 3-8. Find why a is incorrect.

25. Neither a nor b is correct. Refer to page 3-8. Find why b is incorrect.

26. Both a and b are correct. Refer to page 3-9. Find why b is correct.

27. Neither a nor b is correct. Refer to page 5-1. Find why a is incorrect.

28. Only a is incorrect. Refer to page 3-9. Find why b is correct.

29. Only a is incorrect. Refer to Tear-Out 6. Find why b is correct.

30. Incorrect. Refer to page 5-1. Select another answer.

31. Only a is incorrect. Refer to page 5-3. Find why b is correct.

32. Both a and b are correct. Refer to page 3-9. Find why a is correct.

33. Only b is correct. Refer to page 5-3. Find why a is incorrect.

34. Incorrect. Refer to page 4-2. Select another answer.

35. Only a is correct. Refer to page 5-1. Find why b is incorrect.

36. Incorrect. Refer to page 3-6. Select another answer.

37. Incorrect. Refer to page 4-1. Select another answer.

38. Only b is incorrect. Refer to page 4-1. Find why a is correct.

39. Incorrect. Refer to pages 5-2 and 5-3. Select another answer.

40. Only a is incorrect. Refer to page 3-9. Find why b is correct.

41. Only a is correct. Refer to page 3-22. Find why b is incorrect.

42. Both a and b are correct. Refer to page 5-1. Find why a is correct.

43. Incorrect. Refer to page 3-9. Select another answer.

44. Neither a nor b is correct. Refer to page 4-2. Find why a is incorrect.

45. Neither a nor b is correct. Refer to page 5-1. Find why b is incorrect.

46. Incorrect. Refer to page 3-22. Select another answer.

47. Only b is incorrect. Refer to page 4-1. Find why a is correct.

48. Only b is correct. Refer to Tear-Out 6. Find why a is incorrect.

49. Only a is correct. Refer to page 5-1. Find why b is incorrect.

50. Neither a nor b is correct. Refer to page 5-4. Find why a is incorrect.

51. Incorrect. Refer to page 4-1. Select another answer.

52. Neither a nor b is correct. Refer to page 5-6. Find why b is incorrect.

53. Neither a nor b is correct. Refer to page 3-8. Find why a is incorrect.

54. Incorrect. Refer to page 4-1. Select another answer.

55. Only a is incorrect. Refer to page 4-1. Find why b is correct.

56. Incorrect. Refer to page 3-8. Select another answer.

57. Incorrect. Refer to page 5-3. Select another answer.

58. Incorrect. Refer to page 5-6. Select another answer.

59. Neither a nor b is correct. Refer to page 5-1. Find why b is incorrect.

60. Neither a nor b is correct. Refer to page 5-6. Find why a is incorrect.

61. Only a is incorrect. Refer to page 5-1. Find why b is correct.

62. Incorrect. Refer to page 5-1. Select another answer.

63. Incorrect. Refer to Tear-Out 6. Select another answer.

64. Only a is correct. Refer to page 4-1. Find why b is incorrect.

65. Both a and b are correct. Refer to page 5-2. Find why b is correct.

66. Both a and b are correct. Refer to page 5-3. Find why a is correct.

67. Both a and b are correct. Refer to page 3-6. Find why b is correct.

68. Incorrect. Refer to page 5-1. Select another answer.

69. Incorrect. Refer to page 3-9. Select another answer.

70. Incorrect. Refer to page 3-9. Select another answer.

71. Only b is incorrect. Refer to page 5-1. Find why a is correct.

72. Only a is correct. Refer to page 3-9. Find why b is incorrect.

73. Only b is correct. Refer to page 5-1. Find why a is incorrect.

74. Incorrect. Refer to page 5-1. Select another answer.

75. Both a and b are correct. Refer to page 5-2. Find why b is correct.

SUPPLEMENTARY MATERIALS

SUGGESTIONS FOR SHELTER BASIC FOOD SUPPLY			
Kind of food	Amount per person for—		Remarks
	1 day	2 weeks	
1. Milk	Equivalent of 2 glasses (fluid).	Equivalent of 7 quarts (fluid).	Each of the following is the equivalent of 1 quart of fluid milk: Evaporated milk: three 6-ounce cans; one 14½-ounce can. Nonfat dry milk or whole dry milk: 3 to 3½ ounces.
2. Canned meat, poultry, fish, cooked dry beans, and peas.	2 servings	28 servings (8 to 9 pounds).	Amounts suggested for one serving of each food are as follows: Canned meat, poultry: 2 to 3 ounces. Canned fish: 2 to 3 ounces. Canned mixtures of meat, poultry, or fish with vegetables, rice, macaroni, spaghetti, noodles, or cooked dry beans: 8 ounces. Condensed soups containing meat, poultry, fish, or dry beans or dry peas: one-half of a 10½-ounce can.
3. Fruits and vegetables	3 to 4 servings	42 to 56 servings (about 21 pounds, canned).	Amounts suggested for one serving of each food are as follows: Canned juices: 4 to 6 ounces, single strength. Canned fruit and vegetables: 4 ounces. Dried fruit: 1½ ounces.
4. Cereals and baked goods	3 to 4 servings	42 to 56 servings (5 to 7 pounds).	Amounts suggested for one serving of each food are as follows (selection depends on extent of cooking possible): Cereal: Ready-to-eat puffed: ½ ounce. Ready-to-eat flaked: ¾ ounce. Other ready-to-eat cereal: 1 ounce. Uncooked (quick-cooking): 1 ounce. Crackers: 1 ounce. Cookies: 1 ounce. Canned bread, steamed puddings, and cake: 1 to 2 ounces. Flour mixes: 1 ounce. Flour: 1 ounce. Macaroni, spaghetti, noodles: Dry: ¾ ounce. Cooked, canned: 6 ounces.
5. Spreads for bread and crackers.	According to family practices		Examples: Cheese spreads. Peanut and other nut butters. Jam, jelly, marmalade, preserves. Sirup, honey. Apple and other fruit butters. Relish, catsup, mustard.
6. Fats and vegetable oil		Up to 1 pound or 1 pint.	Amount depends on extent of cooking possible. Kinds that do not require refrigeration.
7. Sugars, sweets, and nuts		1 to 2 pounds	Sugar, hard candy, gum, nuts, instant puddings.
8. Miscellaneous	According to family practices and extent of cooking possible.		Examples: Coffee, tea, cocoa (instant). Dry cream product (instant). Bouillon products. Flavored beverage powders. Salt and pepper. Flavoring extracts, vinegar. Soda, baking powder.

SHELTER SUPPLIES

NOTE: The most essential supplies are in shaded areas.

Tear-Out 2

FIRST AID SUPPLIES

- Antiseptic solution
- Aspirin tablets (5 grain)
- Baking soda
- Cough mixture
- Diarrhea medication
- Ear drops
- Table salt
- Toothache remedy
- First aid handbook
- Specific medications recommended by your physician
- Adhesive tape, roll (2" wide)
- Applicators, sterile, cotton-tipped
- Bandage, sterile roll (2" wide)
- Bandage, sterile roll (4" wide)
- Bandages, triangular (37"x 37"x 52")
- Bandages (can of plastic strips, assorted sizes)
- Cotton, sterile, absorbent
- Laxative
- Motion sickness tablets (for nausea)
- Nose drops (water soluble)
- Petroleum jelly
- Rubbing alcohol
- Smelling salts
- Dressings, sterile (4"x 4")
- Safety pins (assorted sizes)
- Sanitary napkins
- Soap
- Scissors
- Splints, wooden (18" long)
- Thermometer (clinical oral or rectal type)
- Tweezers
- Water purification materials
- Handbook on family health and first aid, such as:
  - "Family Guide: Emergency Health Care" (DHEW)
  - Red Cross textbook, "Home Nursing;" or Instructor's Guide, "Care of Sick and Injured."

Tear-Out 3

IMPROVISING FALLOUT PROTECTION

INSIDE

a. A basement is better than aboveground floors in a home. In large buildings, the central areas of middle floors are good.

b. A corner of a basement is better than the center.

c. If there is no basement, improvise shelter away from outside walls on lower floors.

d. Keep shelter small. Concentrate shielding material immediately around and above you.

e. Stay away from windows and outside doorways.

OUTSIDE, URBAN AREA

Try to get to some large structure, such as a building. Then follow above procedures.

OUTSIDE, RURAL AREA

Get to a tunnel or cave if possible. Otherwise, take shelter in a culvert, underpass, or ditch — anything that is below ground level. Then improvise a shelter.

Tear-Out 4

OUTLINE FOR FAMILY EMERGENCY PLANNING

The nearest public fallout shelter to our home is located at

_____

The best route from our home to this shelter is

_____

The location in our home that offers the greatest fallout protection is

_____

Our Emergency Broadcast System (EBS) Station is _____

Its dial setting is _____

NAMES OF FAMILY MEMBERS				
Nearest shelter to work/school				
Best route planned?				
Is assistance to shelter needed?				
Who will provide?				
CD Training Completed Personal and Family Survival				
Medical Self-Help				
Home Nursing				
First Aid				
Shelter Management				
Radiation Measuring				
Firefighting				

NAMES OF FAMILY MEMBERS				
Family Responsibility for: Supplies to take to public shelter				
Home shelter area food				
Home shelter area water				
First aid and first aid supplies				
Eliminating fire hazards and firefighting				
Safe storage of vital family records				
Sanitation and sanitation supplies				
Maintenance of family shelter area				
Ensure battery radio is available and working				

Special Personal Needs:

Serious allergies_____

Special medicines_____

Special foods_____

Infant Supplies_____

CHECKLIST OF SUPPLIES FOR FAMILY SHELTER AREA

_____Water

_____Food

_____Sanitation

_____First aid & medical

_____Battery radio

_____Change of clothing

_____Citizen's radiation meter

_____Firefighting

Items we plan to take to public shelter:

_____

_____

If our family is separated, we will reunite at _____

_____; or if this location is not available, at _____

_____,

when we are able to come out of shelter.

We can obtain additional planning information from:

Civil Defense Director _____, Telephone _____,

Address _____

County Agricultural Agent _____, Telephone _____

Address _____.

Tear-Out 5 (3 of 3)

TEN STEPS TOWARD FIRE PREVENTION AND DEFENSE

1. Practice fire-safe housekeeping. Clear closets, attics, basements, garages, and yards of castoff articles and rubbish that will burn. Never store gasoline, benzene, naphtha, or other combustible liquids indoors. Remove dry grass and weeds from around sheds, houses, and fuel tanks.

2. Construct fire lanes and fire lines. Fire lanes are roads around fields or through woodlands that enable fire equipment and vehicles to rapidly reach the fire scene. Fire lines are plowed ditches through fields and woodlands that help to stop the spread of fire.

3. Check electrical wiring systems. Fires are caused by overloaded circuits, wornout cords, and otherwise careless use of electrical appliances.

4. Check heating units. Each winter fires are started by faulty furnaces and heaters.

5. Organize for effective fire prevention. In a war emergency you may not be able to get help from the fire department. During other disasters, the fire department may be too busy to help everyone. People in rural areas must have an organized plan of fire protection. Each person must know what job he is supposed to do in time of fire.

6. Prepare a shelter. Prepare a shelter that can be used in any emergency. Stock it with enough food and vital supplies to last at least two weeks.

7. Have firefighting tools close by. Shovels, rakes, buckets, hoses, water pumps, ladders, and axes must be kept close to houses or work areas.

8. Establish a water supply. Irrigation ditches, water tanks, cisterns, or small ponds make ideal sources of water. Lightweight portable pumps and hoses are vital in isolated areas.

9. Have heavy equipment available. Bulldozers, tractors, and cultivators can be used to fight fires. They can be used to dig fire lines and push dirt over existing fires.

10. Set up a line of communications. A system of communication for reporting fires can result in prompt preventive action.

HOW TO STOP A SMALL FIRE

Fire needs three things to burn: fuel, air, and heat. Take away any one of these, and the fire will go out.

FUEL	—	Remove burning material before a fire spreads. Remove all material in the area that might burn.
AIR	—	Cut off the air to a small fire with a wet rug or blanket. Throw dirt on a large fire. Use dirt to smother burning gas or oil.
HEAT	—	Use water to reduce heat. If a fire is caused by electricity, be sure to shut off the current before using water.

Tear-Out 7

BE PREPARED

Tear out and use this check list to make sure you are prepared for disaster.

	Yes	No
You know what to do in case of fire, flood, hurricane, or tornado	_____	_____
Your house, garage, and yard are clear of burnable rubbish	_____	_____
Your electrical and heating systems have been checked for safety	_____	_____
All fuels and flammable fluids are stored in safe containers, outside the house	_____	_____
You have fire extinguishers, a hand water pump, and/or garden hose properly located for firefighting purposes	_____	_____
You know the general first aid rules	_____	_____
At least one person has had first aid training	_____	_____
You have the necessary first aid supplies	_____	_____
You have an emergency shelter stocked with ample food, water, and equipment	_____	_____
You know the attack warning signals and what to do if they sound	_____	_____
You know how to use the radio for emergency information	_____	_____
You know protective measures against fallout	_____	_____
Your car is in good running condition. Gas tank is kept more than half full at all times	_____	_____

EVERY ANSWER WILL BE "YES"
IF YOU ARE PREPARED

Tear-Out 8

☆ U. S. GOVERNMENT PRINTING OFFICE : 1969 O - 354-859

A
B
C
D

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25

SURVIVAL PREPAREDNESS FOR RURAL AREAS
CARD 1

EVCO Response Card
(Erase to Verify with Computer Output)

EVCO 235 San Pedro N.E.
Albuquerque, New Mexico 87108 ..... PATENT PENDING

A
B
C
D

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25

SURVIVAL PREPAREDNESS FOR RURAL AREAS
CARD 2

EVCO Response Card
(Erase to Verify with Computer Output)
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