Hazardous Materials for First Responders

Questions and Answers

From IFSTA Hazmat for First Responders 4th Edition

Introduction to Hazardous Materials

1. Which of the following is responsible for publishing and maintaining the official Mexican standards covering the Mexican Hazardous Materials Land Transportation Regulation?
p. 47

A.) SEMARNAT
B.) SGHC
*C.) SCT
D.) STPS

2. Which agency manages the national nuclear research and defense programs, including the storage of high-level nuclear waste?
p. 42

*A.) DOE
B.) DHS
C.) CPSC
D.) ATF

3. Which class of asphyxiant prohibit the body from using available oxygen?
p. 23

A.) Simple
B.) Progressive
C.) Radical
*D.) Chemical

4. Which of the following is present for a limited time after the explosive event?
p. 32

*A.) Thermal heat fireball
B.) Shrapnel fragmentation
C.) Blast-pressure wave
D.) Seismic waves

5. Which is reported in 2005 to be the most frequently released substance?
p. 56

A.) Sulfuric acid
*B.) Carbon monoxide
C.) Nitrogen oxide
D.) Ammonia

6. Which is essentially the equivalent to the US EPA in Mexico?
p. 50

A.) SGHC
*B.) SEMARNAT
C.) STPS
D.) SCT

7. What determines the role, responsibilities and capabilities of the LEPCs?
p. 41

A.) Resource District
B.) Enforcement District
C.) Settlement District
*D.) Planning District

8. What are chemicals that cause a significant proportion of exposed people to develop an allergic reaction after one or more exposures to the chemical?
p. 28

*A.) Sensitizers
B.) Carcinogens
C.) Biologicals
D.) Reactors

9. Which substance accounted for only 1.00 percent of releases in 2005?
p. 56

A.) Butadiene
B.) Nitrogen dioxide
*C.) Nitric oxide
D.) Carbon monoxide

10. Which agency in the US is responsible for issuing transportation regulations in Title 49 CFR?
p. 38

A.) DOL
*B.) DOT
C.) NRC
D.) EPA

11. Which is the simplest types of microorganisms that can only multiply in the living cells of their hosts?
p. 29

*A.) Viruses
B.) Bacteria
C.) Biological toxins
D.) Rickettsias

12. What is the second on the list of transportation incidents involving hazardous materials?
p. 51

*A.) Corrosives
B.) Anhydrous ammonia
C.) Chlorine
D.) Flammable liquids

13. Which is the primary cause of injury at the site of an explosion?
p. 31

A.) Incendiary thermal effect
*B.) Blast-pressure wave
C.) Seismic effect
D.) Shrapnel fragmentation

14. Which of the following accounted for the fewest number of releases in 2005?
p. 58

A.) Nitrous oxide
B.) Xylene
C.) Hydrofluoric acid
*D.) Phosphorus

15. To whom does the EPA delegate the responsibility for issuing permits and enforcing compliance to environmental programs?
p. 39

A.) City governments
B.) Municipal governments
C.) Federal governments
*D.) State governments

16. What is the minimum acceptable level of training for first responders in Canada?
p. 12

A.) NFPA 473
B.) Title 29 CFR 1910
*C.) NFPA 472
D.) Title 40 CFR 311

17. Which type of radiation can be stopped by a thin sheet of aluminum?
p. 20

A.) Gamma
*B.) Beta
C.) Neutron
D.) Alpha

18. Which condition presents with the symptom of waxy or white skin?
p. 17

*A.) Superficial frostbite
B.) Systemic hypothermia
C.) Incipient frostbite
D.) Deep frostbite

19. Which type of radiation can be completely stopped by a piece of paper?
p. 20

A.) Neutron
*B.) Alpha
C.) Gamma
D.) Beta

20. Who is ultimately the lead agency on terrorist incident scenes?
p. 44

*A.) FBI
B.) DOD
C.) DHS
D.) CIA

21. What animal tends to transmit rickettsias?
p. 29

A.) Mosquito
B.) Human
C.) Bird
*D.) Tick

22. What route of entry involves taking in materials due to poor hygiene practices?
p. 32

*A.) Ingestion
B.) Inhalation
C.) Skin contact
D.) Injection

23. What is the target organ of carbon monoxide?
p. 25

A.) Kidney
B.) Lungs
*C.) Nervous system
D.) Immune system

24. When was the Superfund Act enacted due to the Love Canal environmental emergency and disaster?
p. 34

A.) 1986
B.) 1968
*C.) 1980
D.) 1992

25. Which is commonly seen when contact with a base occurs?
p. 26

A.) Offensive odor is emitted
*B.) Slick, greasy feel on the skin
C.) Immediate pain
D.) Chemical burn at the site

26. Which of the following is the Operations Level first responder NOT allowed to perform offensive operations with?
p. 15

A.) Liquefied petroleum gas
*B.) Cryogenic liquids
C.) Natural gas
D.) Gasoline

27. Which agency is responsible for the xylene when it is being used or manufactured?
p. 51

*A.) OSHA
B.) EPA
C.) DOT
D.) CPSC

28. At which level will the first responder be expected to only recognize the presence of a hazardous material at the scene?
p. 13

A.) Specialist
B.) Operations
*C.) Awareness
D.) Technician

29. What is the sphere of responsibility of the Consumer Product Safety Commission?
p. 46

A.) Public health and the environment
*B.) Hazardous household products
C.) Radioactive materials
D.) Worker safety

30. Which department provides oversight of the development, manufacture and testing of explosives?
p. 43

A.) DOJ
B.) ATF
*C.) DOD
D.) CPSC

31. At what temperature does an elevated-temperature material reach the liquid phase?
p. 18

A.) 100 degrees Fahrenheit (38 degrees Celsius)
*B.) 212 degrees Fahrenheit (100 degrees Celsius)
C.) 70 degrees Fahrenheit (21 degrees Celsius)
D.) 464 degrees Fahrenheit (240 degrees Celsius)

32. What commodity tops the list in pipeline accidents?
p. 55

A.) Butane
B.) Gasoline
*C.) Crude oil
D.) Diesel fuel

33. Which is the most common form of transportation in which hazardous materials incidents occur?
p. 51

A.) Rail
B.) Air
C.) Water
*D.) Highway

34. Which type of toxin can target all organs in the body?
p. 25

A.) Immunotoxins
B.) Teratogens
*C.) Carcinogens
D.) Mutagens

35. What was changed about placarding due to the incident in Kansas City, MO on November 29, 1988?
p. 35-36

*A.) When placards can be removed from vehicles
B.) Location of the placards on the vehicles
C.) Minimum requirements for placard usage
D.) Number of placards required on vehicles

36. Which class of toxin includes chemicals such as strychnine?
p. 27

A.) Carcinogens
B.) Irritants
C.) Allergens
*D.) Convulsants

37. Which category of exposure to radiation is the human body more able to handle?
p. 22

A.) Acute
*B.) Chronic
C.) Variable
D.) Intermittent

38. Which of the following was NOT provided by SARA?
p. 40

A.) Required Superfund actions to consider the standards and requirements found in other state environmental laws
B.) Provided new enforcement authorities and settlement tools
*C.) Provided for liability of persons responsible for releases of hazardous waste
D.) Stressed the importance of permanent remedies

39. How are most infectious diseases transmitted?
p. 30

A.) Ingestion of the disease
*B.) Contact with bodily fluids
C.) Being bitten by an infected insect
D.) Exposure to airborne disease

40. Which is the Canadian equivalent of the US HMR?
p. 44

*A.) Transport Canada
B.) Health Canada
C.) Canadian Nuclear Safety Commission
D.) Environment Canada

41. Which type of radiation causes a release of secondary radiation when they interact with the human body?
p. 21

A.) Beta
B.) Gamma
C.) Alpha
*D.) Neutron

42. With which type of thermal burn is a loss of skin layers seen?
p. 19

A.) First degree
*B.) Third degree
C.) Second degree
D.) Fourth degree

43. At which level is the responder expected to protect individuals, the environment and property from the effects of the hazardous materials release in a defensive manner?
p. 14

A.) Technician
B.) Specialist
*C.) Operations
D.) Awareness

44. How many industrial chemicals does the Toxic Substances Control Act allow the EPA to track?
p. 41

A.) 25,000
B.) 95,000
C.) 55,000
*D.) 75,000

45. Which of the following is NOT a characteristic of an acid?
p. 25

*A.) Breaks down fatty tissues
B.) Has a pH value between 0 and 6.9
C.) May cause permanent eye damage
D.) Contact typically causes immediate pain

46. Which of the following must occur for exposure to occur?
p. 21

A.) Contact with the substance
B.) Exposure to the source
C.) Proximity to the source
*D.) Biological damage

47. Which of the following issues legislation relating to worker safety under Title 29 CFR?
p. 41

*A.) OSHA
B.) CSPS
C.) DOT
D.) EPA

48. Who has been put in charge of protecting the US coastlines from oil spills?
p. 35

A.) Wildlife and Fisheries
*B.) US Coast Guard
C.) TAFC
D.) FEMA

49. Where are the training requirements for a first responder at a hazardous materials incident referenced in the EPA regulations?
p. 11-12

A.) Title 29 CFR 1910
B.) Title 29 CFR 279
C.) Title 40 CFR 1301
*D.) Title 40 CFR 311

50. Which of the following is NOT an area of concern when considering absorption of hazardous materials?
p. 33

A.) Underarms
B.) Hands
C.) Mouth
*D.) Abdomen

51. Which of the following terms is used to describe an acid?
p. 26-27

A.) Caustic
B.) Alkali
*C.) Corrosive
D.) Alkaline

52. Which type of hazard deals with an extreme in temperature?
p. 16

A.) Radiological
B.) Chemical
*C.) Thermal
D.) Variation

53. At what level does the effects of ionizing radiation occur?
p. 22

*A.) Cellular
B.) Organic
C.) Systemic
D.) Full-body

54. What should be done when clothing is saturated with cryogenic material?
p. 16

A.) Rinse it with copious amounts of water
*B.) Remove it immediately
C.) Decontaminate it immediately
D.) Leave it in place

55. Which of the following is NOT a primary mission of the Department of Homeland Security?
p. 43

*A.) Track and monitor terrorist events around the world and how they impact the US
B.) Minimize the damage from potential attacks and natural disasters
C.) Reduce America's vulnerability to terrorism
D.) Prevent terrorist attacks within the US