

**FINAL EXAMINATION**

*There is only one correct answer for each question. When you have finished, prepare the answer sheet as directed and mail to the address provided or you may submit your answers online at <http://training.fema.gov>, click on FEMA Independent Study and follow the links to the specific course. Your examination will be evaluated and the results will be issued to you.*

1. Which of the following correctly identifies the four “routes of entry” for toxic substances into the body:
  - a. Irritation, injection, absorption, asphyxiation
  - b. Absorption, injection, ingestion, inhalation
  - c. Absorption, injection, insertion, inhalation
  - d. Injection, ingestion, integration, absorption
  
2. A person works every day with a toxic substance, but does not take protective measures. The individual will experience what type of exposure?
  - a. Acute
  - b. Chronic
  - c. Lethal
  - d. Carcinogenic
  
3. The body has very efficient internal defenses which can remove any quantity of an unwanted substance.
  - a. True
  - b. False
  
4. The tendency of chemicals to become more concentrated as they move up the food chain is known as:
  - a. Leachification
  - b. Biodegradation
  - c. Chemical breakdown
  - d. Biomagnification
  
5. An industry’s smokestack is an example of what type of source?
  - a. Point
  - b. Area

6. You have just learned that a chemical you work with is a mutagen. What effect does this chemical have?
  - a. Increases the risk of cancer
  - b. Increases the risk of physical defects in a developing embryo
  - c. Causes a permanent change in the genetic material (DNA)
  - d. Irritates the lining of the throat
  
7. A toxic accident occurs in your neighborhood. Several adults, teenagers, and small children are present. Which group, if any, would likely be most severely affected?
  - a. All would be affected to the same degree
  - b. The small children would be most severely affected
  - c. The teenagers would be most severely affected
  - d. The adults would be most severely affected
  
8. The analysis of a situation to determine the level of risk inherent in that situation is called:
  - a. Risk assessment
  - b. Risk management
  - c. Risk search
  - d. Health effects assessment
  
9. A chemical that, in relatively small amounts, produces injury when it comes in contact with skin tissue is known as:
  - a. A radioactive material
  - b. An explosive
  - c. A flammable liquid
  - d. A corrosive
  
10. It is difficult and sometimes impossible to purify contaminated groundwater.
  - a. True
  - b. False
  
11. The Federal agency responsible for regulating interstate shipments of hazardous materials is:
  - a. Federal Emergency Management Agency
  - b. Department of Transportation
  - c. Environmental Protection Agency
  - d. Occupational Safety and Health Administration

12. The Federal law designed to regulate hazardous waste “from cradle to grave” is:
- Resource Conservation and Recovery Act of 1976
  - Toxic Substances Control Act
  - Safe Drinking Water Act
  - Superfund
13. Under existing laws, States do not have broad authority to control how hazardous materials are stored, used, transported, and disposed of within their borders.
- True
  - False
14. Under EPCRA, Local Emergency Planning Committees (LEPCs) are charged with the responsibility to:
- Develop an emergency plan to respond to hazardous materials incidents
  - Regulate hazardous materials within State borders
  - Inspect local factories to ensure compliance with Federal legislation
  - Write local ordinances to promote emergency preparedness
15. Under what circumstances are judges likely to take immediate action to halt pollution before a violation of the law has been proven in court?
- Whenever there is cause to believe the environment might be harmed
  - Whenever environmental lobby groups are in agreement that the problem exists
  - When the polluting industry is large and can afford it
  - In extreme cases when the potential damage is clear and irreparable
16. The local role in reducing public risks from hazardous materials includes:
- Developing an emergency plan for hazardous materials incidents
  - Regulating hazardous materials transportation through local ordinances
  - Regulating safe disposal of hazardous waste
  - All of these
17. The Federal agency primarily responsible for protecting our environment from contamination by hazardous materials releases is:
- The Department of Transportation
  - The Federal Emergency Management Agency
  - The Department of Labor
  - The Environmental Protection Agency

18. Which Federal agency provides training, resource information and technical assistance to States to help them prepare for hazardous materials emergencies?
- The Department of Transportation HMEP Grants
  - The Federal Emergency Management Agency
  - The Department of Labor
  - The Environmental Protection Agency SARA Grants
19. The EPCRA grants citizens the right to obtain information on hazardous materials in their community.
- True
  - False
20. Which Federal law is intended to assure, so far as possible, safe working conditions?
- The Occupational Safety and Health Act
  - The Clean Air Act
  - The Toxic Substances Control Act
  - The Safe Drinking Water Act
21. The presence of hazardous materials can always be detected by the sense of smell.
- True
  - False
22. A Material Safety Data Sheet (MSDS) includes information on:
- Health effects and physical properties of a specific chemical
  - Laws governing the use of a specific chemical
  - The amount of a specific chemical that can be legally released
  - The cost of a specific chemical
23. In the NFPA 704 labeling system, a rating of 4 in any quadrant corresponds to:
- The lowest degree of hazard
  - A moderately low hazard
  - A moderately high hazard
  - The highest degree of hazard
24. Sensory clues to the possible presence of hazardous materials in water include:
- Dead fish
  - Unusual algae growth
  - White froth
  - All of these

25. By reading the placard on a tanker bearing hazardous materials, you can find out:
- The hazard class of the substance being carried
  - The amount of the substance being carried
  - The date the substance was shipped
  - The name of the carrier
26. The five phases of a hazardous material's life does not include production, transportation, storage, elimination, and disposal.
- True
  - False
27. Besides the LEPC, what local agencies may maintain specific information on industries in your community that use, store, or generate EHS-listed hazardous materials?
- The local police
  - The local public works department
  - The local fire department
  - The local emergency services department
28. If you encounter a suspicious substance, you should:
- Immediately dispose of it yourself
  - Notify the appropriate authority
29. The code OXY in the bottom white quadrant of a label conforming to NFPA 704 indicates that:
- The material can easily release oxygen to create or worsen a fire or explosion hazard
  - The material reacts with water
  - The material will explode on contact with air
  - The material is radioactive
30. The basic approaches to cleaning contaminated soil include:
- Containment, off-site containment, on- or off-site treatment, or disposal
  - Air stripping/aeration, activated carbon, and chemical precipitation
31. One benefit of a sound community plan to deal with a hazardous materials emergency is:
- Fewer resources are required to handle the incident
  - Roles and responsibilities are defined
  - The need for assistance from other jurisdictions is eliminated
  - The likelihood of an incident occurring is almost eliminated

32. A primary purpose of conducting a hazardous materials exercise is to find out:
- Which responders should receive raises
  - Whether planned procedures work
  - What type of incident is most likely to occur
  - What Federal and State resources could be made available for such an incident
33. If you are caught outdoors in the vicinity of a hazardous materials incident, you should try to move away from the release:
- Upstream, uphill, and upwind
  - Downstream, downhill, and downwind
  - Close to the incident responders
34. In-place sheltering is never an appropriate option in an accident involving hazardous materials.
- True
  - False
35. Decontamination is needed in order to:
- Remove contaminants from people and equipment
  - Treat injuries resulting from chemical emergencies
  - Identify chemicals involved in an accident
  - Estimate the amount of contaminant to which a person has been exposed
36. Once approved, an Emergency Operations Plan should never be revised, since this would create potential confusion in responding agencies.
- True
  - False
37. Formal mutual aid agreements with surrounding jurisdictions are seldom if ever needed, since everyone is ready to pitch in when an incident occurs.
- True
  - False

38. The key components of a complete local plan include a basic plan, supporting annexes, and implementing procedures. The supporting annexes typically include:
- Conceptual framework for emergency operations
  - Lists of people to alert under certain conditions
  - Information on how specific functions (such as evacuation) will be carried out for particular hazards
  - “How to” instructions for operating departments or individuals
39. What is the primary purpose of a Hazardous Materials Response Team?
- To develop a community plan for responding to hazardous materials incidents
  - To inspect buildings where hazardous chemicals are used or manufactured
  - To provide the skills, knowledge, and technical equipment needed to offensively handle hazardous materials incidents
  - To assist in the disposal of household hazardous waste
40. A person whose skin is coated with a toxic substance gives his/her contaminated clothing to another individual. This likely will result in what is called:
- Cross-contamination
  - Ingestion
  - Risk
  - Reckless endangerment
41. Health affects resulting from contact with a hazardous substance over a long period of time is called:
- Chronic exposure
  - Doxological exposure
  - Serological exposure
  - Systemic exposure
42. The primary hazard associated with most flammable liquids is:
- Radioactivity
  - Toxic vapors
  - Faulty containers
  - Fire or explosion

43. When treating a household incident involving exposure to a poison, your most reliable source of advice and expertise is:
- The local health department
  - The police
  - The Poison Control Center
  - The product's label
44. Standard approaches to waste disposal are generally regulated and managed by the:
- EPA
  - DOT
  - FEMA
  - OSHA
45. The chemical agent or hazardous material that interferes with the body's ability to transfer oxygen to the cells is:
- Nerve agent
  - Tear gas
  - Hydrogen cyanide
  - Phosgene
46. Results of Commodity Flow Surveys can be obtained from:
- FEMA
  - LAPD
  - LEPC
  - SEMA
47. Permissible exposure limits are levels of exposures mandated by:
- USCG
  - OSHA
  - ACGIH
  - EPA
48. What is the recommended minimum number of personnel needed to manage a hazardous materials incident safely?
- 8
  - 5
  - 3-5
  - 3

49. The success of good site operations and the ability of employees to respond during emergencies is:
- a. Initial and annual refresher training
  - b. Well rehearsed response team
  - c. Good site planning
  - d. Annual inspections of the site
50. Existing landfills are generally considered sufficient to serve as the sole means of disposing of the Nation's waste for the foreseeable future.
- a. True
  - b. False