For each assignment, you should define or describe each of the Key Words and Phrases and answer each of the Review and Application Questions.

**Educational Objective 1**

**Describe various categories of physical property exposed to risk.**

**Key Words and Phrases**

Real property (realty)

Tangible property

Intangible property

**Review Questions**

* 1. Identify attributes of unimproved land that may make it difficult to value.
  2. List the different types of buildings and other structures that are permanent improvements when added to real property.
  3. Describe these categories of tangible property and the issues a risk management professional needs to consider with each:

1. Money and securities
2. Accounts receivable records
3. Inventory
4. Furniture, equipment, or supplies
5. Computer equipment and media
6. Machinery
7. Valuable papers and records
8. Mobile property

**Educational Objective 2**

**Describe the major sources of risk affecting physical property.**

Key Words and Phrases

Windstorm

Earthquake focus

Epicenter

Modified Mercalli Intensity Scale

Terrorism

**Review Questions**

2-1. Explain how risk management can address natural risk sources.

2-2. Describe the types of windstorms that can cause significant damage.

2-3. Describe the two measures of earthquakes.

2-4. Identify the seven common types of floods.

2-5. Describe the types of water sources that may cause water damage to structures.

2-6. Identify the types of damage that typically result from rioting.

2-7. Describe the types of losses that can result from acts of terrorism.

**Application Question**

2-8. Major Retailer has locations throughout Florida and is subject to many sources of property risk.

1. Identify three natural risk sources to which Major Retailer may be susceptible
2. Identify the economic risk sources to which Major Retailer may be susceptible.

**Educational Objective 3**

**Describe the nature of and the pre-loss and post-loss actions appropriate for windstorms, earthquakes, and floods.**

**Key Words and Phrases**

Tornado

Box action design

Frame action design

**Review Questions**

3-1. Describe the pre-loss disaster recovery actions for windstorm.

3-2. Describe the post-loss disaster recovery actions that may help to reduce further damage to buildings and equipment.

3-3. Describe the post-loss disaster recovery procedures for tornadoes.

3-4. Explain why location is a key factor in controlling earthquake damage to property and injuries to people.

3.5. Identify the two areas of focus for post-loss disaster recovery, actions following an earthquake.

3-6. Describe the cause of tsunamis and tidal waves.

3-7. Describe the pre-loss disaster recovery actions for minimizing fire loss exposures resulting from flooding.

**Application Question**

3-8. A Japanese car manufacturer is considering opening an assembly plant in the central United States. Having seen the devastation a tornado can cause in this area, the managers of the manufacturer are particularly concerned about that risk source. Their concern is not just about the physical plant but also about the personnel in the plant in the event of a tornado.

Describe the pre-loss actions for tornadoes that the car manufacturer should consider in planning this new location.

**Educational Objective 4**

**Explain how a building's construction and occupancy reduce the likelihood and consequences of fire damage.**

**Key Words and Phrases**

Frame construction

Joisted masonry construction

Heavy timber construction (mill construction)

Noncombustible construction

Masonry noncombustible construction

Modified fire-resistive construction

Fire-resistive construction

Fire division

Fender wall

Ignition source

**Review Questions**

4-1. Identify the distinguishing characteristics of each of the following types of building construction:

1. Frame
2. Joisted masonry
3. Heavy timber

4-2. Contrast noncombustible construction with masonry noncombustible construction.

4-3. Describe the operation of fire divisions.

4-4. Explain why controlling the threat of hostile fires in habitational occupancies is difficult.

4-5. Identify the common ignition sources found in habitational occupancies.

4-6. Describe the primary ignition sources for office occupancies.

**Application Question**

4-7. A large department store chain wants to construct a distribution center in the southern United States that will serve as a regional warehouse for a two-hun­dred-mile radius. Warehouse managers have informed the chain's risk manage­ment professional that under normal circumstances of staffing, availability of moving equipment, amount of inventory, and depending on where a fire originates, it will probably take one hour to evacuate 60 percent of the value of the inventory. Sixty percent is the target set by the chief financial officer, based on her level of risk tolerance. Recognizing that the cost of construction typi­cally rises as a more fire-resistive type of construction is chosen, recommend the least expensive building construction type that will still allow the ware­house personnel to meet their 60 percent target under normal circumstances and explain why each less expensive construction type would be inappropriate.

**Educational Objective 5**

**Explain how a building's protection and external exposures reduce the likelihood and consequences of fire damage.**

**Key Words and Phrases**

Internal (or private) fire protection

External (or public) fire protection

Automatic fire suppression system

Sprinkler system

Wet pipe sprinkler systems

Dry pipe sprinkler systems

Deluge system

Preaction sprinkler system

Dry chemical system

Carbon dioxide system

Gas extinguishing system

Foam system

Standpipe system

**Review Questions**

5-1. Identify the two integral parts of a fire suppression system.

5-2. Identify the five basic types of fire alarms.

5-3. Describe the components of an automatic fire suppression system.

5-4. Contrast the uses of deluge sprinkler systems with those of preaction sprinkler systems

5-5. Describe the operation of foam sprinkler systems.

5-6. Explain why it is important for employees to be trained to use fire extinguishers.

5-7. Describe the factors that influence the effectiveness of external fire protection.

5-8. List the factors that a risk management professional should consider when working with a public fire department.

5-9. Explain why it is important to control exterior exposures by keeping the area between buildings clear.

5-10. Explain how a water-spray system can help to prevent the spread of fire from one building to a neighboring building.

**Application Question**

5-11. An insurance agency is located in a two-story masonry building. The building located next door to the agency is a twelve-story masonry apartment building that includes balconies and large bay windows on all sides.

Describe the construction considerations that would influence the spread of fire from the apartment building to the insurance agency's building.

**Educational Objective 6**

**Explain how human characteristics, building occupancies, and the Life Safety Code affect the safety of persons exposed to fire in buildings.**

**Key Words and Phrases**

Fire safety

**Review Questions**

6-1. List the four human characteristics that affect susceptibility to injury or death of individuals caused by a building fire.

6-2. Describe the life safety concerns related to day care building occupancies.

6-3. Describe the life safety concerns related to detention and correctional building occupancies.

6-4. Explain the importance of complying with the Life Safety Code.

**Application Question**

6-5. A shopping mall that takes up an entire city block includes a movie the and several bar/restaurant operations. On a Friday night at 7:00 p.m., a reoccurs in the kitchen of one of the restaurants. Smoke spreads rapidly through the mall, causing fire alarms to sound throughout the building. Explain how the characteristics affecting classes of occupancies and building occupants' susceptibility to fire apply to these groups of patrons.

1. Young children in the movie theater, which is currently showing a film that appeals primarily to an audience under twelve years of age.
2. Shoppers in a department store within the mall.
3. Customers at a bar/restaurant featuring a "happy hour" event from 5:30 to 7:30 p.m.

**Educational Objective 7**

**Explain how to use various methods to value physical property.**

**Key Words and Phrases**

Book value (net depreciated value)

Historical cost

Replacement cost

Functional replacement cost

Market value

Economic value

**Review Questions**

7-1. Identify the typical approaches to valuing property.

7-2. Explain why risk management professionals do not rely on the book value of a property.

7-3. Explain the circumstances in which a risk management professional may choose functional replacement cost as a means of valuing property.

7-4. Explain the circumstances in which a risk management professional may choose market value as a means of valuing property.

7-5. Explain when economic value would be used for risk management purposes.

**Application Question**

7-6. Children’s' Hospital was built two years ago on property donated by a philanthropist. The former home of the philanthropist, a fifty-room mansion, is now part of the hospital and is used as offices. What approaches might the hospital's risk management professional use to value its property?

**Educational Objective 8**

**Describe the types of legal interests in physical property.**

**Key Words and Phrases**

Secured creditor

Bailee

Bailor

Bailment contract

Trade fixtures

**Review Questions**

8-1. Identify the categories of legal interests in physical property.

8-2. Describe two ways a common carrier's liability may be limited.

8-3. Describe the legal interests of tenants regarding these:

1. Improvements and betterments
2. Trade fixtures

**Application Question**

8-4. Grocery Store operates its business from a building owned by Leasing Company. Grocery Store has made numerous improvements to the building, including permanent walls that separate the retail section of the store from the storage section of the store. Grocery Store has also added merchandise shelves (called gondolas) that form the aisles of the store. What responsibility, if any, would Leasing Company have to Grocery Store for damages to Grocery Store's improvements?

**Educational Objective 9**

**Given information on a physical property, assess the risk and recommend treatment options for protecting lives and property.**

**Application Question**

9-1. You are the risk manager for a resort hotel operation in California. The hotel has 380 rooms, two restaurants, two swimming pools, several retail stores, and a golf course.

1. Describe the tangible personal property you as the risk manager might identify as part of the risk assessment process.
2. Describe the natural and economic risk sources affecting physical property at this location.
3. Describe the types of internal fire protection risk control measures that could be used to reduce the likelihood and consequences of fire damage at this hotel.