**Chapter 11: International Ocean Transportation**

**TRUE/FALSE**

1. RORO ships have the advantage of not needing specialized lifting equipment.

ANS: T DIF: Easy REF: page 428

2. Containerships carry containers only on their deck and carry traditional cargo below deck.

ANS: F DIF: Easy REF: page 426

3. The largest ships in the world are crude carriers.

ANS: T DIF: Easy REF: page 420

4. According to the Jones Act, cabotage prohibits the use of U.S.-flagged ships.

ANS: F DIF: Hard REF: page 438

5. Most tramp ships are designed for one type of cargo exclusively.

ANS: T DIF: Easy REF: page 415

6. Net [registered] tonnage is gross registered tonnage minus volume occupied by the engine room, the crew, and other space necessary for the good operation of the ship.

ANS: T DIF: Easy REF: page 416

7. Displacement tonnage is the weight of the ship, when empty, measured by the weight of the volume of water it displaces.

ANS: F DIF: Moderate REF: page 417

8. A ship will sit lower in saltwater than it would in fresh water with the same quantity of cargo.

ANS: F DIF: Moderate REF: page 418

9. An oil tanker of more than 300,000 deadweight tonnage is called a very large crude carrier.

ANS: F DIF: Moderate REF: page 420

10. Containerization is increasing in international shipping.

ANS: T DIF: Easy REF: page 423

11. Dry-bulk carriers represent the largest share of all ships in operation worldwide.

ANS: T DIF: Hard REF: page 422

12. Container ships can now carry as many as 12,000 40-foot containers at once.

ANS: T DIF: Moderate REF: page 425

13. A PCC is a pure car-carrier ship.

ANS: T DIF: Moderate REF: page 428

14. The greatest share of all international trade by ocean is conducted by containers.

ANS: F DIF: Moderate REF: page 422

15. The country in which the largest number of ships (by tonnage) are registered is the United States.

ANS: F DIF: Hard REF: page 439

16. Natural gas is transported internationally by specialized LNG ships.

ANS: T DIF: Easy REF: page 433

17. General-merchandise ships always include a crane on board to load and unload cargo.

ANS: F DIF: Hard REF: page 429

18. Deadweight tonnage does not include the bunker.

ANS: F DIF: Moderate REF: page 415

19. The operating costs of a U.S.-flagged ship are about 2.7 times those of a ship flying a flag of convenience.

ANS: T DIF: Moderate REF: page 438

20. The choice of flag has no effect on the safety and reliability of a ship and its crew.

ANS: F DIF: Moderate REF: page 440

MULTIPLE CHOICE

1. Deadweight tonnage

|  |  |  |  |
| --- | --- | --- | --- |
| a. | is the maximum theoretical weight of the cargo that a vessel can carry. | d. | is the actual weight of a ship. |
| b. | is equivalent to 2,204.6 pounds. | e. | is a metric measurement of the cargo carried by a vessel. |
| c. | does not include the bunker. |

ANS: A

Deadweight tonnage is the total capacity of the ship, including the bunker, expressed in metric tonnes (2,204.6 pounds).

DIF: Moderate REF: page 415

2. Gross registered tonnage is

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| --- | --- | --- | --- |
| a. | the total volume capacity of the ship. | d. | all of these definitions apply to gross registered tonnage. |
| b. | expressed in hundreds of cubic feet. | e. | is used to determine the fees charged when a ship uses the Panama Canal or the Suez Canal. |
| c. | normally not appropriate for determining the cargo-carrying capacity of a ship. |

ANS: D

All of these definitions apply to gross registered tonnage.

DIF: Moderate REF: page 416

3. In containerized shipping, the term TEU stands for

|  |  |  |  |
| --- | --- | --- | --- |
| a. | Trans-European Units. | d. | Two-Ended Undercarriage. |
| b. | Terminal Event Utilization. | e. | Twenty-foot Equivalent Units. |
| c. | Trip Extension Unit. |

ANS: E

The correct answer is twenty-foot equivalent unit.

DIF: Moderate REF: page 421

4. A characteristic of breakbulk ships is that they are

|  |  |  |  |
| --- | --- | --- | --- |
| a. | increasing in usage. | d. | very fast to load and unload, unlike containerships. |
| b. | labor-intensive. | e. | designed to carry liquid cargo. |
| c. | able to be loaded and unloaded by one type of equipment. |

ANS: B

Loading and unloading is labor intensive, as each package is handled separately, with several stevedores and crane operators. Breakbulk ships are declining in usage.

DIF: Moderate REF: page 428

5. Countries with an open registry often provide

|  |  |  |  |
| --- | --- | --- | --- |
| a. | secondary registries. | d. | very strict regulation of ships. |
| b. | flags of convenience. | e. | excellent seamanship and maintenance requirements. |
| c. | an opportunity for ship owners from developing countries to register their ships in the United States. |

ANS: B

An open registry means that any ship owner can choose to have its vessel fly that country’s flag, called flags of convenience, due to their minimal requirements and taxes. Secondary registries are not necessary for countries with an open registry, and countries with an open registry usually have looser regulation of ships.

DIF: Moderate REF: page 438

6. Post-Panamax ships have capacities that can reach

|  |  |  |  |
| --- | --- | --- | --- |
| a. | 120,000 TEUs | d. | 1,200 TEUs |
| b. | 18,000 TEUs | e. | None of the above |
| c. | 1,200,000 TEUs |

ANS: B

Post-Panamax ships range from 6,000 to 24,000 TEUs in capacity.

DIF: Moderate REF: page 424

7. Break-bulk ships

|  |  |  |  |
| --- | --- | --- | --- |
| a. | are expected to increase in number. | d. | are dependent on specific port cranes in order to be loaded and unloaded. |
| b. | have low labor costs. | e. | can carry liquid-bulk cargoes. |
| c. | can call at just about any port to pick up different kinds of cargo loads. |

ANS: C

Breakbulk ships are expected to decrease in number and they have high labor costs. Since most breakbulk ships have cranes onboard that allow them to load and unload without relying on port equipment, they can call at just about any port, and have the capacity to carry many different types of cargo.

DIF: Moderate REF: page 430

8. The deck below the main deck, which can accommodate smaller breakbulk cargo, is called the

|  |  |  |  |
| --- | --- | --- | --- |
| a. | scrub deck. | d. | aft deck. |
| b. | secondary deck. | e. | tween deck. |
| c. | RORO deck. |

ANS: E

Tweendeck is the correct answer.

DIF: Moderate REF: page 429

9. Ships dedicated to the transport of petroleum products are called

|  |  |  |  |
| --- | --- | --- | --- |
| a. | liquid barges. | d. | crude carriers. |
| b. | dry-bulk carriers. | e. | drugstore ships. |
| c. | Hague carriers. |

ANS: D

Liquid barges do not exist, dry-bulk carriers are used to carry dry agricultural products, and Hague carriers do not exist. Crude carriers are the bulk ships dedicated to the transport of unrefined (crude) oil.

DIF: Easy REF: page 432

10. The type of ship in which coal is usually carried is a called a:

|  |  |  |  |
| --- | --- | --- | --- |
| a. | cabotage ship. | d. | carbon ship. |
| b. | conference ship. | e. | breakbulk ship. |
| c. | dry-bulk carrier. |

ANS: C

Dry-bulk carriers are used to carry agricultural products, as well as coal, ores, scrap iron, dry chemicals, and other bulk commodities.

DIF: Easy REF: page 435

11. Refrigerated ships are slowly being replaced by

|  |  |  |  |
| --- | --- | --- | --- |
| a. | refrigerated containers. | d. | RORO containers. |
| b. | dry-bulk carriers. | e. | cold ships. |
| c. | tramp ships. |

ANS: A

Containerization is increasingly moving into the area of refrigeration, replacing refrigerated (or “reefer”) ships.

DIF: Easy REF: page 437

12. Standardized units of cargo on a breakbulk ship have a capacity of

|  |  |  |  |
| --- | --- | --- | --- |
| a. | 385 metric tons of deadweight tonnage. | d. | 100 long tons. |
| b. | 30 long tons. | e. | There are no standardized units of cargo on a breakbulk ship. |
| c. | 50 metric tons. |

ANS: E

Breakbulk ships can carry any unit of cargo that are much larger than containerships, with no limit on weight or size, except the size and capacity of the ship.

DIF: Hard REF: page page 428

13. LNG and LPG ships

|  |  |  |  |
| --- | --- | --- | --- |
| a. | are obsolete. | d. | operate on the North Atlantic trade only. |
| b. | cannot compete with container ships. | e. | can also carry frozen fruit juices. |
| c. | often operate on long-term contracts. |

ANS: C

Liquefied natural gas (LNG) and liquefied petroleum gas (LPG) ships are *not* obsolete and are specialized bulk carriers in a service that is different from the normal containerization trade. They are often used in a particular trade for long periods of time on long-term contracts. They work worldwide and cannot carry any other cargo than the ones for which they are designed.

DIF: Moderate REF: page 433

14. NVOCCs are

|  |  |  |  |
| --- | --- | --- | --- |
| a. | not regulated by the Federal Maritime Commission. | d. | Far more expensive than small-packet carriers like UPS and FedEx. |
| b. | prohibited in North America. | e. | able to handle freight to any destination. |
| c. | rarely involved in LCL freight. |

ANS: E

NVOCCs are Non-Vessel-Operating Common Carriers. They *are* regulated by the Federal Maritime Commission, they are *not* prohibited in North America, and in most cases, they act as freight consolidators and aggregate less-than-container-load (LCL) freight from several customers into a full container, which they can ship anywhere in the world.

DIF: Hard REF: page 443

15. The total volume capacity of the ship is expressed in tons corresponding to the

|  |  |  |  |
| --- | --- | --- | --- |
| a. | ship size in hundreds of cubic feet. | d. | weight tonnage. |
| b. | full tonnage of the cargo. | e. | ship carrying capacity. |
| c. | deadweight tonnage. |

ANS: A

Gross tonnage is the total capacity of the ship expressed in tons that are equivalent to hundreds of cubic feet (2.83 cubic meters).

DIF: Easy REF: page 416

16. Capacity of a ship used to determine taxation of the ship by its country of registry or by port or canal authorities is called

|  |  |  |  |
| --- | --- | --- | --- |
| a. | displacement tonnage. | d. | gross registered tonnage. |
| b. | deadweight tonnage. | e. | net registered tonnage. |
| c. | light tonnage. |

ANS: D

Displacement tonnage is the total weight of the ship, when fully loaded, measured by the weight of the volume of water it displaces. Light tonnage is the weight of the ship, measured the same way, but when the vessel is empty. Deadweight tonnage is the total capacity of the ship. Gross registered tonnage is the total *volume* capacity of the ship, and is used to determine how much ship owner will have to pay in taxes to the country in which the ship is registered, or tolls to the authorities of the ports it visits or the canals it uses.

DIF: Hard REF: page 416

17. Ships too large to pass through the Panama Canal are called

|  |  |  |  |
| --- | --- | --- | --- |
| a. | super-size ships. | d. | capesize ships. |
| b. | Panamax ships. | e. | ultra-Panamax ships. |
| c. | post-Panamax ships. |

ANS: C

Capesize ships are not relevant. Panamax ships are the largest ships that *can* pass through the Panama Canal, while post-Panamax ships are all ships larger than that size.

DIF: Moderate REF: page 418

18. The increasing size in containerships may eventually result in

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| --- | --- | --- | --- |
| a. | more products being shipped by breakbulk ships. | d. | an overall increase in freight costs. |
| b. | more ports being able to handle these ships. | e. | a general decrease in the use of the Panama Canal. |
| c. | the development of a “hub” system. |

ANS: C

Larger containerships probably will result in an even further decline in the usage of breakbulk ships. Fewer ports will be able to handle the giant containerships, which will create the need for a hub system from which mega-ships would travel, with smaller feeder ships traveling between the two. Freight rates are decreasing with the use of containerships, and the Panama Canal is unaffected.

DIF: Moderate REF: page 426

19. Ships designed to carry one single type of refined petroleum product are sometimes called

|  |  |  |  |
| --- | --- | --- | --- |
| a. | LASH ships. | d. | drugstore ships. |
| b. | post-production ships. | e. | CNG ships. |
| c. | conference ships. |

ANS: D

Petroleum products can be transported by chemical carriers they are designed to carry chemicals. They may transport as many as 40 different chemicals and are referred to as “drugstore” ships.

DIF: Hard REF: page 431

20. A shipper can determine what the current cost of moving goods international is by consulting cost indices published by

|  |  |  |  |
| --- | --- | --- | --- |
| a. | the Rotterdam Exchange. | d. | the Felixstowe Exchange. |
| b. | the Baltic Exchange. | e. | The Havre Exchange. |
| c. | the New York Exchange. |

ANS: C

The Baltic Exchange publishes several indices that indicate the current costs of moving cargo internationally.

DIF: Moderate REF: page 437

COMPLETION

1. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ ships travel on a regular voyage, following a pre-established schedule, and with determined ports of call.

ANS: Liner

DIF: Easy REF: page 414

2. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ ships do not operate on a regular schedule but travel wherever the company using the vessel wants the cargo delivered.

ANS: Tramp

DIF: Easy REF: page 414

3. A long ton is \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ pounds.

ANS: 2,240

DIF: Moderate REF: page 415

4. The \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ tonnage is the total weight of the ship when fully loaded, measured by the weight of the volume of water it displaces.

ANS: displacement

DIF: Hard REF: page 417

5. The deepest draft a ship can sit is called the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ line.

ANS: tropical

DIF: Moderate REF: page 418

6. A ship of the maximum size that can possibly fit through the locks of the Panama Canal is called a \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ ship.

ANS: Panamax

DIF: Easy REF: page 418

7. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ ships are designed to carry all sorts of different loads in a single voyage.

ANS: Combination

DIF: Moderate REF: page 430

8. Dry-bulk carriers designed to serve ports of the Great Lakes are called \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

ANS: lakers

DIF: Moderate REF: page 436

9. Each ship is an extension of a country’s territory. The country in which the country is registered is identified by its \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

ANS: flag

DIF: Easy REF: page 438

10. The non-vessel-operating common carrier system was the basis for the model followed by \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ in the air passenger business.

ANS: consolidators

DIF: Moderate REF: page 443