



Basic Training for Ships subject to the IGF Code (BIGF)

30 Practice Questions and Answers for STCW Exams

Updated for DG Shipping India Exams | Source: brightmariner.com

Practice Set 1

Q1. IMO means _____

- A) International Main Organisation
- B) Indian Marine Organisation
- C) International Maritime Organisation
- D) Indian Maritime Organisation

Correct Answer: C (International Maritime Organisation)

Explanation: IMO stands for International Maritime Organization, the specialized agency of the United Nations responsible for regulating shipping safety, maritime security, and marine environmental protection.

Q2. When Low-flashpoint fuels that are liquid and compressed, what are the gas fuels?

- A) Butane i
- B) Butane i
- C) All the above
- D) Propane mixtures

Correct Answer: C (All the above)

Explanation: Under the IGF Code, low-flashpoint fuels that can be stored as liquefied or compressed gases include methane (LNG), propane, butane (LPG), and their associated mixtures.

Q3. A liquefied gas is the liquid form of a substance, which at _____ would be a gas.

- A) both (a) and (b)
- B) ambient temperature
- C) none of the above
- D) atmospheric pressure

Correct Answer: A (both (a) and (b))

Explanation: A liquefied gas is defined by the Gas Codes as the liquid form of a substance which, at ambient temperature and atmospheric pressure, would exist in a gaseous state.

Q4. The most important property of a liquified gas, in relation to pumping and storage is _____

- A) none of the above
- B) low vapour pressure
- C) high vapour pressure
- D) saturated vapour pressure

Correct Answer: D (saturated vapour pressure)

Explanation: Saturated Vapor Pressure (SVP) is the most critical physical property of a liquefied gas regarding pumping, storage,



~~Q5. Saturated vapour pressure is the _____ pressure exerted when liquid is in equilibrium with its own vapour at a given temperature.~~

- A) flexible
- B) partial
- C) relative
- D) absolute

Correct Answer: D (absolute)

Explanation: Saturated vapor pressure is the absolute pressure exerted by a vapor in thermodynamic equilibrium with its liquid phase at a given temperature in a closed system.

Q6. The most important property of a liquified gas, in relation to _____ is saturated vapour pressure

- A) storage
- B) both (a) and (b)
- C) pumping
- D) none of the above

Correct Answer: B (both (a) and (b))

Explanation: Saturated vapor pressure directly governs both cargo pumping cavitation limits and fuel tank pressure containment requirements for liquefied gases.

Q7. Saturated vapour pressure is the absolute pressure exerted when _____ is in equilibrium with its own vapour at a given temperature.

- A) vapour
- B) liquid
- C) solid
- D) gas

Correct Answer: B (liquid)

Explanation: Saturated vapor pressure is the absolute equilibrium pressure exerted by the evaporated vapor above the liquid surface at a specified temperature.

Q8. Saturated vapour pressure is the absolute pressure exerted when liquid is in _____ with its own vapour at a given temperature.

- A) none of the above
- B) equilibrium
- C) stability
- D) tranquility

Correct Answer: B (equilibrium)

Explanation: Thermodynamic equilibrium occurs when the rate of liquid evaporation equals the rate of vapor condensation at a constant temperature and pressure.



Q9. Liquid with a vapour pressure exceeding _____ absolute at a temperature of 37.8 deg C.

- A) 2.0 bar
- B) 2.9 bar
- C) 2.5 bar
- D) 2.8 bar

Correct Answer: D (2.8 bar)

Explanation: Under the IMO IGC and IGF Codes, a liquefied gas is defined as a liquid having a saturated vapor pressure exceeding 2.8 bar absolute at a temperature of 37.8 degreesC.

Q10. Liquid with a vapour pressure exceeding 2.8 bar absolute at a temperature of _____.

- A) 38.8 deg C
- B) 37.8 deg C
- C) 36.8 deg C
- D) 37.0 deg C

Correct Answer: B (37.8 deg C)

Explanation: The standard reference temperature defined in the IMO Gas Codes for classifying liquefied gases by vapor pressure (exceeding 2.8 bar absolute) is 37.8 degreesC (100 degreesF).

Q11. What are the cargoes carried on Liquefied Gas Tankers?

- A) Liquefied Petroleum Gas
- B) none of the above
- C) Liquefied Natural Gas
- D) both (a) and (b)

Correct Answer: D (both (a) and (b))

Explanation: Liquefied gas carriers transport liquefied natural gas (LNG), liquefied petroleum gas (LPG), and chemical gases such as ammonia, ethylene, and vinyl chloride monomer.

Q12. _____ is transported either by pipeline as a gas or by sea in its liquified form as Liquefied Natural Gas.

- A) Natural gas
- B) Ethane gas
- C) Chemical gases
- D) none of the above

Correct Answer: A (Natural gas)

Explanation: Natural gas is transported either overland via pressurized pipeline grids or across oceans by specialized gas carriers in liquefied form as Liquefied Natural Gas (LNG).

Q13. Natural gas comes from _____

- A) heating mixtures
- B) rocks
- C) cold climate
- D) underground deposits

Correct Answer: D (underground deposits)

Explanation: Natural gas is a naturally occurring fossil fuel extracted from underground geological hydrocarbon reservoirs and gas fields.



- A) 50%
- B) 70 to 99 %
- C) 100%
- D) 60 to 88%

Correct Answer: B (70 to 99 %)

Explanation: Methane (CH₄) is the predominant component of raw and commercial natural gas, typically comprising 70% to 99% of the total gas volume.

Q15. Which is the major constituent of natural gas?

- A) oxygen
- B) ethane
- C) methane
- D) octane

Correct Answer: C (methane)

Explanation: Methane is the lightest and primary constituent of natural gas, typically making up between 85% and 95%+ of Liquefied Natural Gas.

Q16. Methane is a petrochemical stock leading to the production of _____

- A) acetic acid
- B) acetaldehyde
- C) methonal
- D) ethanol

Correct Answer: C (methonal)

Explanation: Methane is an essential petrochemical feedstock used in chemical synthesis plants for the commercial production of methanol and ammonia.

Q17. _____ is a petrochemical stock leading to the production of methonal

- A) Octane
- B) Methane
- C) Acetic acid
- D) Ethane

Correct Answer: B (Methane)

Explanation: Methane is reacted with steam (steam reforming) to produce synthesis gas, which is the primary feedstock for manufacturing methanol.

Q18. Methanol is a feedstock to _____

- A) both (a) and (b)
- B) none of the above
- C) Methyl tetra chloride
- D) Formaldehyde

Correct Answer: A (both (a) and (b))

Explanation: Methanol is a versatile petrochemical intermediate widely used in the production of formaldehyde, acetic acid, solvents, and alternative marine fuels.



- A) gas
- B) crude oil
- C) diesel
- D) petroluem

Correct Answer: B (crude oil)

Explanation: Associated gas is natural gas found in reservoir contact with crude oil, containing methane along with heavier Natural Gas Liquids (NGLs).

Q20. Associated gas found in combination with crude oil comprises mainly _____

- A) none of the above
- B) methane
- C) both (a) and (b)
- D) Natural Gas Liquids

Correct Answer: C (both (a) and (b))

Explanation: Associated petroleum gas consists of a mixture of methane and heavier fractions known as Natural Gas Liquids (ethane, propane, butane, pentane).

Q21. Natural Gas Liquids are made up of _____

- A) Liquified Petroleum Gas
- B) none of the above
- C) ethane
- D) both (a) and (b)

Correct Answer: D (both (a) and (b))

Explanation: Natural Gas Liquids (NGL) comprise the heavier hydrocarbon fractions of natural gas, primarily ethane, propane, butane, isobutane, and natural gasoline.

Q22. Natural Gas Liquids are carried at- _____ at atmospheric pressure

- A) 37oC
- B) 35oC
- C) 36oC
- D) 80oC

Correct Answer: D (80oC)

Explanation: Heavier Natural Gas Liquid fractions can be refrigerated and carried as liquids at temperatures down to -80 degreesC at atmospheric pressure.

Q23. Natural Gas Liquids are carried at- _____ at atmospheric vapour pressure of 5 bar

- A) 135degc
- B) 400degC
- C) 45degc
- D) 550degc

Correct Answer: C (45degc)

Explanation: Semi-pressurized carriage allows certain liquefied gas fractions to be transported at temperatures around -45 degreesC under a vapor pressure of approximately 5 bar.

Q24. Natural Gas Liquids are carried at -45deg C at vapour pressure of _____

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- A) 15 bar
- B) 7 bar
- C) 5 bar
- D) 25 bar

Correct Answer: C (5 bar)

Explanation: Carriage of liquefied petroleum gases in semi-refrigerated tanks is commonly maintained at -45 degreesC with a designed working vapor pressure of about 5 bar.

Q25. Liquefied Petroleum Gas is a comprise of _____

- A) propane
- B) none of the above
- C) butane
- D) both (a) and (b)

Correct Answer: D (both (a) and (b))

Explanation: Liquefied Petroleum Gas (LPG) consists primarily of propane (C₃H₈), butane (C₄H₁₀), or commercial mixtures of both hydrocarbons.

Q26. What is the use of bottled gas?

- A) none of the above
- B) both (a) and (b)
- C) cooking in remote loctions
- D) fuel for heating

Correct Answer: B (both (a) and (b))

Explanation: Commercial bottled gas (LPG cylinders) is widely utilized for domestic heating, commercial cooking, automotive fuel (autogas), and industrial cutting.

Q27. Which is an important octane enhancer for motor gasoline?

- A) kerosene
- B) crude oil
- C) water
- D) butane

Correct Answer: D (butane)

Explanation: Commercial butane and isobutane are critical blending agents and octane enhancers utilized in the refining of motor gasoline.

Q28. Which is used as bottled gas in cold climates?

- A) ammonia
- B) both (a) and (b)
- C) propane
- D) none of the above

Correct Answer: C (propane)

Explanation: Propane has a lower boiling point (-42 degreesC) than butane (-0.5 degreesC), allowing it to vaporize easily and serve as bottled gas in cold climates.



- A) power generation
- B) All of the above
- C) petrochemical feedstock
- D) metal cutting

Correct Answer: B (All of the above)

Explanation: LPG is utilized globally as domestic cooking fuel, industrial heating fuel, automotive autogas, and as petrochemical cracker feed.

Q30. Used as Petrochemical feedstock for the production of _____

- A) both (a) and (b)
- B) none of the above
- C) acetic acid
- D) acetaldehyde

Correct Answer: A (both (a) and (b))

Explanation: LPG fractions (propane and butane) are vital petrochemical feedstocks for steam cracking into olefins like ethylene and propylene.