

# Sample Question Paper



**INTERNATIONAL  
MARITIME OLYMPIAD**

# International Maritime Olympiad 2025 - 100 Sample MCQ Questions

## SECTION 1: NAVIGATION & SEAMANSHIP (40 Questions)

### Chart Work & Position Fixing

Q1. What is the latitude of a position located at 45° North of the Equator?

- A) 45° S
- B) 45° N
- C) 45° E
- D) 45° W

Q2. One minute of latitude is equal to:

- A) 1 kilometer
- B) 1 nautical mile
- C) 1 statute mile
- D) 1 cable

Q3. On a Mercator chart, rhumb lines appear as:

- A) Curved lines
- B) Straight lines
- C) Zigzag lines
- D) Circular arcs

Q4. The IALA Buoyage System uses which color for port hand marks in Region A?

- A) Green
- B) Red
- C) Yellow
- D) Blue

Q5. A bearing of 270° True indicates direction towards:

- A) North
- B) East
- C) South
- D) West

## **Compass Systems**

Q6. Variation is the angle between:

- A) Magnetic North and Compass North
- B) True North and Magnetic North
- C) True North and Compass North
- D) Grid North and True North

Q7. A vessel's compass course is  $090^\circ$ . Variation is  $5^\circ\text{E}$  and Deviation is  $3^\circ\text{W}$ . What is the True course?

- A)  $088^\circ\text{T}$
- B)  $092^\circ\text{T}$
- C)  $082^\circ\text{T}$
- D)  $098^\circ\text{T}$

Q8. Gyro compass error is primarily caused by:

- A) Magnetic fields
- B) Speed and latitude errors
- C) Solar radiation
- D) Weather conditions

Q9. When converting from Compass to True, you should:

- A) Add Easterly errors and subtract Westerly errors
- B) Subtract Easterly errors and add Westerly errors
- C) Always add both errors
- D) Always subtract both errors

Q10. The reference direction for a gyro compass is:

- A) Magnetic North
- B) True North
- C) Grid North
- D) Compass North

## **COLREGS - Collision Regulations**

Q11. According to Rule 5, every vessel shall at all times maintain:

- A) Safe speed
- B) Proper lookout
- C) Sound signals
- D) Navigation lights

Q12. Rule 6 requires vessels to proceed at:

- A) Maximum speed
- B) Slow speed
- C) Safe speed
- D) Half speed

Q13. In a head-on situation (Rule 14), both vessels should:

- A) Stop engines
- B) Alter course to port
- C) Alter course to starboard
- D) Sound five short blasts

Q14. When two power-driven vessels are crossing, which vessel is the give-way vessel?

- A) The faster vessel
- B) The larger vessel
- C) The vessel with the other on her starboard side
- D) The vessel with the other on her port side

Q15. Rule 18 states that a power-driven vessel shall keep out of the way of:

- A) Another power-driven vessel
- B) A vessel not under command
- C) A faster vessel
- D) A smaller vessel

Q16. A vessel showing three red lights in a vertical line indicates:

- A) Vessel at anchor
- B) Vessel aground
- C) Vessel not under command
- D) Vessel restricted in ability to maneuver

Q17. A sailing vessel shall exhibit:

- A) Sidelights and sternlight
- B) Masthead light, sidelights and sternlight

- C) All-round white light only
- D) Sidelights only

Q18. One prolonged blast at intervals of not more than 2 minutes means:

- A) Vessel underway in restricted visibility
- B) Vessel at anchor
- C) Vessel aground
- D) Danger signal

Q19. Five or more short and rapid blasts mean:

- A) I am altering course to starboard
- B) I am altering course to port
- C) I am operating astern propulsion
- D) Warning - I do not understand your intentions

Q20. According to Rule 19, in restricted visibility, a vessel which detects another vessel by radar alone shall:

- A) Maintain course and speed
- B) Take avoiding action in ample time
- C) Sound five short blasts
- D) Alter course to port

### **Ship Handling & Maneuvering**

Q21. The pivot point of a vessel moving ahead is located:

- A) At the stern
- B) At amidships
- C) About 1/3 of the ship's length from the bow
- D) At the bridge

Q22. The turning circle of a ship consists of four parts. The distance gained in the direction of the original course is called:

- A) Transfer
- B) Advance
- C) Tactical diameter
- D) Final diameter

Q23. When a ship enters shallow water, the effect is:

- A) Increased speed and better steering
- B) Reduced speed and sluggish steering
- C) No change in handling
- D) Better turning ability

Q24. Bank suction effect causes:

- A) Bow to be drawn towards the bank
- B) Stern to be drawn towards the bank
- C) Ship to maintain course
- D) Ship to increase speed

Q25. When two ships pass close to each other, the interaction effect is most dangerous when:

- A) Ships are moving slowly
- B) Ships are moving at high speed in shallow water
- C) Ships are stationary
- D) Ships are far apart

### **Anchoring & Mooring**

Q26. One shackle of anchor cable is equal to:

- A) 10 meters
- B) 15 meters
- C) 25 meters
- D) 27.5 meters

Q27. The term "brought up" means:

- A) Anchor is retrieved
- B) Anchor is holding and ship has stopped
- C) Anchor is dragging
- D) Anchor is being lowered

Q28. The scope of anchor cable is:

- A) Length of cable deployed
- B) Ratio of cable length to depth of water
- C) Weight of anchor
- D) Breaking strength of cable

Q29. A vessel at anchor should display:

- A) Two all-round white lights
- B) One all-round white light in the fore part
- C) Three all-round red lights
- D) Sidelights and sternlight

Q30. Spring lines are used during mooring to:

- A) Hold the vessel alongside only
- B) Prevent fore and aft movement

- C) Replace breast lines
- D) Tighten head and stern lines

## **Tides & Weather**

Q31. Spring tides occur when:

- A) The moon and sun are at right angles
- B) The moon and sun are in line
- C) During spring season only
- D) Water temperature rises

Q32. The Beaufort scale measures:

- A) Wave height
- B) Wind speed
- C) Barometric pressure
- D) Air temperature

Q33. Cumulonimbus clouds are associated with:

- A) Fair weather
- B) Fog
- C) Thunderstorms
- D) Light drizzle

Q34. The safest quadrant for navigating near a tropical cyclone in the Northern Hemisphere is:

- A) Right front (dangerous semicircle)
- B) Left rear (navigable semicircle)
- C) Center (eye)
- D) Right rear

Q35. Set and drift refer to:

- A) Ship's speed and course
- B) Current's direction and speed
- C) Wind speed and direction
- D) Tide height and time

## **Bridge Equipment**

Q36. AIS (Automatic Identification System) primarily provides:

- A) Weather information
- B) Vessel identification and position information
- C) Water depth
- D) Engine status

Q37. ARPA stands for:

- A) Automatic Radar Plotting Aid
- B) Advanced Radio Position Aid
- C) Automatic Radio Protection Area
- D) Advanced Radar Position Analysis

Q38. ECDIS is:

- A) Electronic Chart Display and Information System
- B) Emergency Communication and Data Information System
- C) Engine Control and Display Information System
- D) Electronic Cargo Display Information System

Q39. VHF Channel 16 is used for:

- A) Port operations
- B) Ship-to-ship routine communications
- C) Distress, safety, and calling
- D) Weather broadcasts only

Q40. GPS accuracy can be degraded by:

- A) Satellite geometry and atmospheric conditions
- B) Ship's speed
- C) Compass error
- D) Rudder angle

## SECTION 2: MARINE ENGINEERING (30 Questions)

### Main Propulsion Engines

Q41. The main advantage of a 2-stroke diesel engine over a 4-stroke is:

- A) Lower fuel consumption
- B) Higher power-to-weight ratio
- C) Smoother operation
- D) Simpler construction

Q42. In a 4-stroke diesel engine, how many power strokes occur per revolution?

- A) One
- B) Two
- C) Three
- D) 0.5 (one every two revolutions)

Q43. Turbocharging increases engine power by:

- A) Reducing fuel consumption
- B) Increasing air density in cylinders
- C) Lowering exhaust temperature
- D) Reducing engine speed

Q44. The purpose of scavenging in a 2-stroke engine is to:

- A) Cool the engine
- B) Remove exhaust gases and supply fresh air
- C) Lubricate cylinders
- D) Inject fuel

Q45. Indicated power (IP) is:

- A) Power available at the propeller
- B) Power developed in the engine cylinders
- C) Power consumed by auxiliaries
- D) Electrical power generated

Q46. If an engine has a brake power of 850 kW and mechanical efficiency of 85%, the indicated power is approximately:

- A) 723 kW
- B) 850 kW
- C) 1000 kW
- D) 1100 kW

## **Auxiliary Machinery**

Q47. The primary function of a purifier is to:

- A) Generate fresh water
- B) Separate impurities from fuel or lube oil
- C) Compress air
- D) Cool engine

Q48. Air compressors are used onboard mainly for:

- A) Air conditioning
- B) Starting main engine and auxiliary purposes
- C) Cargo handling only
- D) Fire fighting only

Q49. In a fire tube boiler:

- A) Water flows through tubes and hot gases surround them
- B) Hot gases flow through tubes and water surrounds them
- C) Steam flows through tubes
- D) Fuel flows through tubes

Q50. A fresh water generator works on the principle of:

- A) Reverse osmosis
- B) Vacuum evaporation
- C) Chemical treatment
- D) Filtration

Q51. The purpose of an economizer in a boiler system is to:

- A) Save fuel by recovering waste heat
- B) Generate more steam
- C) Cool exhaust gases
- D) Purify feed water

Q52. Sewage treatment plants onboard use:

- A) Chemical treatment only
- B) Biological treatment with bacteria
- C) Burning process
- D) Filtration only

## **Pumps & Piping**

Q53. Centrifugal pumps are most suitable for:

- A) High pressure, low volume
- B) Low pressure, high volume ✓
- C) Viscous liquids only
- D) Slurries only

Q54. Cavitation in a pump is caused by:

- A) Excessive discharge pressure
- B) Low suction pressure and vapor bubble formation
- C) High liquid temperature
- D) Pump running too slowly

Q55. A non-return valve is used to:

- A) Control flow rate
- B) Prevent reverse flow
- C) Reduce pressure
- D) Mix fluids

Q56. The bilge system is used to:

- A) Pump fuel oil
- B) Remove water from the bottom of compartments
- C) Cool machinery
- D) Supply drinking water

Q57. Green color coding on pipes indicates:

- A) Fresh water
- B) Sea water
- C) Fuel oil
- D) Lube oil

## **Fuel & Lubrication**

Q58. HFO stands for:

- A) High Frequency Oil
- B) Heavy Fuel Oil
- C) Hydraulic Fluid Oil
- D) Heated Fuel Oil

Q59. The main purpose of fuel purification is to:

- A) Increase fuel temperature
- B) Remove water and solid impurities
- C) Mix different fuel grades
- D) Reduce fuel viscosity

Q60. Lubricating oil serves to:

- A) Reduce friction and remove heat
- B) Increase friction
- C) Reduce power output
- D) Cool fuel only

Q61. Viscosity of fuel oil means:

- A) Density
- B) Resistance to flow
- C) Calorific value
- D) Flash point

## **Electrical Systems**

Q62. The basic principle of Ohm's Law states:

- A)  $V = I \times R$
- B)  $V = I / R$
- C)  $V = I + R$
- D)  $V = I - R$

Q63. AC (Alternating Current) differs from DC (Direct Current) in that:

- A) AC flows in one direction only
- B) AC periodically reverses direction
- C) AC has higher voltage always
- D) AC cannot be used for motors

Q64. Power (in watts) in an electrical circuit is calculated as:

- A)  $P = V / I$
- B)  $P = V \times I$
- C)  $P = V + I$
- D)  $P = V - I$

Q65. The purpose of a transformer is to:

- A) Convert AC to DC
- B) Change voltage levels

- C) Measure current
- D) Generate electricity

Q66. Ship's emergency generator should be able to start within:

- A) 10 seconds
- B) 30 seconds
- C) 45 seconds
- D) 5 minutes

Q67. Synchronization of generators means:

- A) Running them at same voltage, frequency, and phase
- B) Starting them simultaneously
- C) Stopping them together
- D) Connecting them to shore power

### **Refrigeration & HVAC**

Q68. The refrigeration cycle consists of four main processes:

- A) Heating, cooling, freezing, melting
- B) Compression, condensation, expansion, evaporation
- C) Pumping, filtering, mixing, separating
- D) Starting, running, stopping, restarting

Q69. In a refrigeration system, the component where refrigerant absorbs heat is:

- A) Compressor
- B) Condenser
- C) Evaporator
- D) Expansion valve

Q70. Common refrigerants used onboard include:

- A) R-134a and R-404A
- B) Ammonia only
- C) Carbon dioxide only
- D) Water vapor

## **SECTION 3: MARITIME REGULATIONS & SAFETY (20 Questions)**

### **SOLAS**

Q71. SOLAS stands for:

- A) Safety of Life at Sea
- B) Standard Operating Level at Sea
- C) Ship Operations and Logistics at Sea
- D) Safety Operations Level at Sea

Q72. SOLAS Chapter II-2 deals with:

- A) Stability
- B) Fire safety
- C) Radio communications
- D) Lifesaving appliances

Q73. Fixed CO2 fire extinguishing systems are typically used in:

- A) Accommodation spaces
- B) Galley
- C) Engine room and cargo holds
- D) Open deck areas

Q74. SOLAS Chapter III covers:

- A) Navigation safety
- B) Lifesaving appliances and arrangements
- C) Fire protection
- D) Cargo safety

Q75. The minimum number of lifebuoys on a cargo ship depends on:

- A) Ship's age
- B) Ship's length
- C) Crew nationality
- D) Cargo type

Q76. GMDSS stands for:

- A) Global Maritime Distress and Safety System
- B) General Maritime Digital Satellite System
- C) Global Marine Detection and Security System
- D) General Marine Data Sharing System

Q77. According to SOLAS, lifeboat capacity must accommodate:

- A) 50% of persons onboard
- B) 75% of persons onboard
- C) 100% of persons onboard
- D) 150% of persons onboard

Q78. A lifeboat marked "35 PERSONS" means:

- A) It can carry maximum 35 persons
- B) It weighs 35 tons
- C) It is 35 meters long
- D) It cost 35,000 dollars

## **MARPOL**

Q79. MARPOL Annex I deals with prevention of pollution by:

- A) Sewage
- B) Garbage
- C) Oil
- D) Noxious liquids

Q80. According to MARPOL Annex I, oil discharge is generally prohibited within:

- A) 3 nm from land
- B) 12 nm from land
- C) 50 nm from land
- D) 200 nm from land

Q81. MARPOL Annex V prohibits discharge of:

- A) Oil
- B) Plastics (all plastics at sea)
- C) Sewage
- D) Bilge water only

Q82. An Oil Record Book is required under:

- A) MARPOL Annex I
- B) MARPOL Annex V
- C) SOLAS Chapter I
- D) ISM Code

Q83. MARPOL Annex VI addresses:

- A) Garbage management
- B) Air pollution from ships

- C) Ballast water management
- D) Oil pollution

Q84. Emission Control Areas (ECAs) have stricter limits on:

- A) Garbage disposal
- B) SO<sub>x</sub> and NO<sub>x</sub> emissions
- C) Bilge discharge
- D) Speed limits

Q85. Special areas under MARPOL have:

- A) Relaxed discharge regulations
- B) More stringent discharge regulations
- C) No discharge regulations
- D) Only apply to tankers

### **Load Line & Stability**

Q86. The purpose of load line marks is to ensure:

- A) Ship speed limits
- B) Ship is not overloaded and has adequate freeboard
- C) Proper ballasting
- D) Cargo securing

Q87. The Plimsoll mark consists of:

- A) A circle with a horizontal line through it
- B) A square
- C) A triangle
- D) Three vertical lines

Q88. TF on load line marks stands for:

- A) Total Freeboard
- B) Tropical Fresh Water
- C) Tropical Fuel
- D) Tank Full

Q89. A ship is in stable equilibrium when:

- A) G is above M
- B) G is below M
- C) G and M coincide
- D) B is above G

Q90. Free surface effect:

- A) Increases GM
- B) Reduces effective GM
- C) Has no effect on stability
- D) Only affects trim

### **ISM & ISPS Codes**

Q91. ISM Code requires every company to designate a:

- A) Safety Officer
- B) Designated Person Ashore (DPA)
- C) Port Captain
- D) Chief Engineer

Q92. The ISM Code's primary objective is to ensure:

- A) Profitability
- B) Safety at sea and pollution prevention
- C) Speed of operations
- D) Crew entertainment

Q93. ISPS Code establishes security levels:

- A) 1, 2, 3
- B) A, B, C
- C) Low, Medium, High
- D) Green, Yellow, Red

Q94. The Ship Security Officer (SSO) is responsible under:

- A) ISM Code
- B) ISPS Code
- C) SOLAS Chapter V
- D) MARPOL

Q95. A Declaration of Security (DoS) is signed between:

- A) Ship and port facility
- B) Ship and flag state
- C) Owner and charterer
- D) Master and pilot

## **SECTION 4: GENERAL MARITIME KNOWLEDGE (10 Questions)**

### **Ship Types & Operations**

Q96. A Panamax vessel is designed to:

- A) Transit the Suez Canal
- B) Transit the Panama Canal
- C) Operate in Panama only
- D) Carry panama hats

Q97. TEU stands for:

- A) Total Equipment Unit
- B) Twenty-foot Equivalent Unit
- C) Tonnage Equivalent Use
- D) Transport Efficiency Unit

Q98. The largest classification society by fleet size is typically:

- A) Lloyd's Register
- B) American Bureau of Shipping
- C) Det Norske Veritas (DNV)
- D) Bureau Veritas

Q99. IMO is headquartered in:

- A) New York
- B) Geneva
- C) London
- D) Athens

Q100. The STCW Convention stands for:

- A) Standard Training, Certification and Watchkeeping
- B) Ship Traffic Control Worldwide
- C) Safety Training for Crew and Workers
- D) Standard Technical Code for Watchmen

## ANSWER KEY:

### Section 1 (Navigation & Seamanship):

1-B, 2-B, 3-B, 4-B, 5-D, 6-B, 7-B, 8-B, 9-A, 10-B, 11-B, 12-C, 13-C, 14-C, 15-B, 16-B, 17-A, 18-A, 19-D, 20-B, 21-C, 22-B, 23-B, 24-A, 25-B, 26-D, 27-B, 28-B, 29-B, 30-B, 31-B, 32-B, 33-C, 34-B, 35-B, 36-B, 37-A, 38-A, 39-C, 40-A

### Section 2 (Marine Engineering):

41-B, 42-D, 43-B, 44-B, 45-B, 46-C, 47-B, 48-B, 49-B, 50-B, 51-A, 52-B, 53-B, 54-B, 55-B, 56-B, 57-B, 58-B, 59-B, 60-A, 61-B, 62-A, 63-B, 64-B, 65-B, 66-C, 67-A, 68-B, 69-C, 70-A

### Section 3 (Maritime Regulations & Safety):

71-A, 72-B, 73-C, 74-B, 75-B, 76-A, 77-C, 78-A, 79-C, 80-B, 81-B, 82-A, 83-B, 84-B, 85-B, 86-B, 87-A, 88-B, 89-B, 90-B, 91-B, 92-B, 93-A, 94-B, 95-A

### Section 4 (General Maritime Knowledge):

96-B, 97-B, 98-C, 99-C, 100-A

---

## DIFFICULTY BREAKDOWN

**Easy Questions (40):** 1, 2, 4, 5, 11, 12, 16, 17, 26, 29, 36, 38, 39, 41, 47, 48, 53, 55, 57, 58, 60, 63, 68, 71, 72, 74, 79, 81, 82, 83, 86, 87, 91, 93, 94, 96, 97, 98, 99, 100

**Medium Questions (40):** 3, 6, 7, 9, 10, 13, 14, 15, 18, 20, 21, 22, 23, 27, 28, 31, 32, 33, 35, 37, 40, 42, 43, 44, 45, 49, 50, 51, 54, 59, 61, 62, 64, 65, 75, 76, 77, 80, 84, 85, 88, 89, 92, 95

**Hard Questions (20):** 8, 19, 24, 25, 30, 34, 46, 52, 56, 66, 67, 69, 70, 73, 78, 90

# International Maritime Olympiad 2025 - 100 Sample MCQ Questions - Paper 2

---

## SECTION 1: NAVIGATION & SEAMANSHIP (40 Questions)

### Chart Work & Position Fixing

Q1. On a nautical chart, the scale 1:50,000 means:

- A) 1 cm = 50 km
- B) 1 cm = 500 meters
- C) 1 cm = 50 meters
- D) 1 cm = 5 km

Q2. Great circle routes are shorter than rhumb line routes because:

- A) They follow straight lines on charts
- B) They follow the curvature of Earth
- C) They avoid bad weather
- D) They use less fuel

Q3. A vessel's position is 30°N, 050°E. What hemisphere is it located in?

- A) Northwestern
- B) Northeastern
- C) Southwestern
- D) Southeastern

Q4. Chart datum is typically referenced to:

- A) Mean high water
- B) Lowest astronomical tide (LAT)
- C) Mean sea level
- D) Highest high water

Q5. A danger bearing is used to:

- A) Determine ship's position
- B) Keep clear of navigational hazards
- C) Measure distances
- D) Calculate tide heights

## **Compass Systems & Navigation**

Q6. The lubber line on a compass represents:

- A) Magnetic north
- B) True north
- C) Ship's heading
- D) Compass error

Q7. To correct compass error, if Variation is  $10^{\circ}\text{W}$  and Deviation is  $4^{\circ}\text{W}$ , total correction is:

- A)  $14^{\circ}\text{W}$
- B)  $6^{\circ}\text{W}$
- C)  $14^{\circ}\text{E}$
- D)  $6^{\circ}\text{E}$

Q8. A vessel on course  $180^{\circ}\text{C}$  with Variation  $7^{\circ}\text{E}$  and Deviation  $2^{\circ}\text{E}$  has a True course of:

- A)  $171^{\circ}\text{T}$
- B)  $189^{\circ}\text{T}$
- C)  $185^{\circ}\text{T}$
- D)  $175^{\circ}\text{T}$

Q9. The difference between True and Magnetic directions is called:

- A) Deviation
- B) Variation
- C) Compass error
- D) Set

Q10. A pelorus is used for:

- A) Measuring depth
- B) Taking relative bearings
- C) Measuring speed
- D) Determining position

## **COLREGS - Lights & Shapes**

Q11. A vessel engaged in towing, with tow length exceeding 200m, shall display:

- A) Two masthead lights in vertical line
- B) Three masthead lights in vertical line
- C) One masthead light
- D) Four masthead lights

Q12. A vessel constrained by draft shall display:

- A) Three red lights in vertical line

- B) Three black balls in vertical line
- C) Two black balls
- D) A cylinder shape

Q13. The arc of visibility of a sternlight is:

- A) 112.5°
- B) 135°
- C) 225°
- D) 360°

Q14. A pilot vessel on duty displays:

- A) Red over white lights
- B) White over red lights
- C) Green over white lights
- D) Three green lights

Q15. The range of a masthead light for vessels over 50m is:

- A) 3 nautical miles
- B) 5 nautical miles
- C) 6 nautical miles
- D) 8 nautical miles

### **COLREGS - Sound Signals & Actions**

Q16. Two short blasts means:

- A) I am altering course to starboard
- B) I am altering course to port
- C) My engines are going astern
- D) Danger signal

Q17. A vessel aground shall sound:

- A) One prolonged blast
- B) Two short blasts
- C) Three separate and distinct strokes on the bell, followed by rapid ringing
- D) Continuous sounding of fog horn

Q18. In a narrow channel, a power vessel less than 20m shall not:

- A) Use the channel
- B) Impede larger vessels
- C) Sound signals
- D) Anchor

Q19. When overtaking in a narrow channel, the overtaking vessel shall sound:

- A) One short blast
- B) Two prolonged, one short blast
- C) Four short blasts
- D) One prolonged blast

Q20. The give-way vessel in a crossing situation shall:

- A) Maintain course and speed
- B) Take early and substantial action
- C) Sound five short blasts
- D) Alter to port

### **Ship Handling**

Q21. Advance in a turning circle is:

- A) Distance perpendicular to original course
- B) Distance gained in direction of original course
- C) Final diameter
- D) Tactical diameter

Q22. Squat effect is more pronounced in:

- A) Deep water
- B) Shallow water
- C) Open sea
- D) Calm weather

Q23. When a single-screw vessel goes astern, the stern tends to:

- A) Move to port (for right-handed propeller)
- B) Stay straight
- C) Move to starboard
- D) Not move

Q24. The term "kick" refers to:

- A) Forward movement
- B) Sideways force from propeller wash on rudder
- C) Ship's rolling
- D) Anchor dropping

Q25. Interaction between two vessels passing causes:

- A) Attraction at bows, repulsion at sterns
- B) Repulsion at bows, attraction at sterns

- C) Attraction throughout
- D) No effect

### **Anchoring & Berthing**

Q26. When anchoring, the anchor is said to be "walking" when it:

- A) Holds firmly
- B) Drags slowly along bottom
- C) Is being retrieved
- D) Is fouled

Q27. A vessel is said to be "ranging" when:

- A) Anchor is dragging
- B) Swinging around anchor within normal radius
- C) Drifting
- D) Moving ahead

Q28. The recommended scope in good holding ground is:

- A) 3:1
- B) 5:1
- C) 8:1
- D) 10:1

Q29. Headlines are used to:

- A) Prevent forward movement
- B) Prevent aft movement
- C) Hold ship alongside
- D) Prevent sideways movement

Q30. Fenders are used to:

- A) Tie the ship
- B) Protect ship's hull during berthing
- C) Lift cargo
- D) Measure depth

### **Tides & Currents**

Q31. Neap tides occur during:

- A) New and full moon
- B) First and last quarter moon
- C) Spring season
- D) Winter season

Q32. The vertical rise and fall of tide is called:

- A) Set
- B) Drift
- C) Range
- D) Stream

Q33. High water and low water occur approximately every:

- A) 6 hours
- B) 12 hours
- C) 24 hours
- D) 3 hours

Q34. A tidal stream atlas shows:

- A) Tide heights
- B) Current direction and rate
- C) Water temperature
- D) Salinity levels

Q35. To calculate height of tide at any time, you can use:

- A) Tide tables and tidal curve
- B) Barometer
- C) Echo sounder only
- D) GPS

### **Weather & Meteorology**

Q36. A rapidly falling barometer indicates:

- A) Fair weather approaching
- B) Deteriorating weather
- C) Stable conditions
- D) Rising temperature

Q37. In the Northern Hemisphere, winds circulate around a low pressure system:

- A) Clockwise
- B) Counter-clockwise
- C) Straight lines
- D) Not at all

Q38. Isobars on a weather map connect points of equal:

- A) Temperature
- B) Pressure

- C) Wind speed
- D) Humidity

Q39. The dangerous semicircle of a tropical cyclone in Northern Hemisphere is on the:

- A) Left side
- B) Right side
- C) Front
- D) Rear

Q40. Cirrus clouds are:

- A) Low level rain clouds
- B) High level ice crystal clouds
- C) Storm clouds
- D) Fog

---

## **SECTION 2: MARINE ENGINEERING (30 Questions)**

### **ENGINE OPERATION & MAINTENANCE**

Q41. The compression ratio in a diesel engine is approximately

- A) 5:1 to 8:1
- B) 12:1 to 20:1
- C) 2:1 to 4:1
- D) 25:1 to 30:1

Q42. Fuel injection in a diesel engine occurs

- A) During intake stroke
- B) During compression stroke
- C) Near end of compression stroke
- D) During exhaust stroke

Q43. Brake specific fuel consumption (BSFC) is measured in

- A) kg/hour
- B) g/kWh
- C) liters/hour
- D) tons/day

Q44. The purpose of a crosshead in large 2-stroke engines is to

- A) Increase power
- B) Separate combustion space from crankcase
- C) Cool the engine
- D) Inject fuel

Q45. Piston rings are used to

- A) Connect piston to crankshaft
- B) Seal combustion chamber and control oil
- C) Cool piston
- D) Inject fuel

Q46. Scavenge fires occur in

- A) Combustion chamber
- B) Scavenge air spaces
- C) Fuel system
- D) Exhaust system

Q47. The camshaft in a 4-stroke engine rotates at

- A) Same speed as crankshaft
- B) Half speed of crankshaft
- C) Twice speed of crankshaft
- D) Quarter speed of crankshaft

Q48. Pre-heating of heavy fuel oil is necessary to

- A) Increase calorific value
- B) Reduce viscosity for proper atomization
- C) Remove sulfur
- D) Increase density

## **AUXILIARY SYSTEMS**

Q49. The function of a jacket cooling water system is to

- A) Cool exhaust gases
- B) Cool engine cylinder walls and heads
- C) Cool fuel oil
- D) Cool accommodation

Q50. An oily water separator must discharge water with oil content not exceeding

- A) 5 ppm
- B) 15 ppm
- C) 50 ppm
- D) 100 ppm

Q51. Starting air pressure for main engines is typically

- A) 10–15 bar
- B) 20–30 bar
- C) 50–60 bar
- D) 100 bar

Q52. The purpose of a charge air cooler is to

- A) Cool exhaust gases
- B) Cool compressed air from turbocharger
- C) Cool fuel
- D) Cool lube oil

Q53. In a centrifugal purifier heavier particles move

- A) Towards center
- B) Towards periphery
- C) Upwards
- D) Downwards

Q54. Stern tube lubrication prevents

- A) Propeller cavitation
- B) Sea water entering shaft bearing
- C) Engine damage
- D) Cargo contamination

## **PUMPS & SYSTEMS**

Q55. A positive displacement pump delivers

- A) Constant volume per revolution
- B) Variable volume per revolution
- C) No discharge
- D) Only high pressure

Q56. Priming a pump means

- A) Starting it
- B) Filling it with liquid before starting

- C) Stopping it
- D) Cleaning it

Q57. A relief valve is used to

- A) Control flow
- B) Prevent excessive pressure
- C) Stop flow
- D) Mix fluids

Q58. Fire main pressure on ships is maintained by

- A) Ballast pump
- B) Fire pump or emergency fire pump
- C) Bilge pump
- D) Fresh water pump

Q59. The ballast system is used to

- A) Cool engine
- B) Adjust ship's draft and stability
- C) Fight fires
- D) Generate fresh water

## **ELECTRICAL & CONTROL SYSTEMS**

Q60. Three-phase AC systems are preferred because they

- A) Use less copper and are more efficient
- B) Are simpler
- C) Cannot be used for motors
- D) Generate DC only

Q61. A circuit breaker differs from a fuse in that it

- A) Cannot be reset
- B) Can be reset after tripping
- C) Provides no protection
- D) Only works on DC

Q62. The purpose of a rectifier is to

- A) Convert AC to DC
- B) Convert DC to AC

- C) Increase voltage
- D) Measure current

Q63. A megger is used to measure

- A) Voltage
- B) Current
- C) Insulation resistance
- D) Power

Q64. Emergency switchboard should be supplied from

- A) Main generator
- B) Emergency generator and batteries
- C) Shore power
- D) Auxiliary generator

Q65. The frequency of AC supply on most ships is

- A) 50 Hz or 60 Hz
- B) 100 Hz
- C) 25 Hz
- D) 400 Hz

## **PROPULSION & STEERING**

Q66. Controllable pitch propellers allow

- A) Variable speed without changing engine RPM
- B) Reverse thrust only
- C) Higher fuel consumption
- D) Fixed blade angle

Q67. Cavitation on propeller blades causes

- A) Increased efficiency
- B) Erosion and loss of thrust
- C) No effect
- D) Better propulsion

Q68. A bow thruster is used for

- A) Main propulsion
- B) Lateral maneuvering at low speeds

- C) Emergency propulsion
- D) Increasing speed

Q69. The rudder angle indicator shows

- A) Ship's heading
- B) Actual rudder angle
- C) Rate of turn
- D) Speed

Q70. Electro-hydraulic steering gear uses

- A) Electric motors driving hydraulic pumps
- B) Manual operation only
- C) Compressed air
- D) Steam power

## SECTION 3 MARITIME REGULATIONS & SAFETY

### SOLAS & SAFETY EQUIPMENT

Q71. Enclosed lifeboats must be capable of being launched in

- A) 10 minutes with crew of 3 experienced persons
- B) 30 minutes with crew of trained persons
- C) 1 hour
- D) 5 minutes

Q72. Immersion suits must be carried when

- A) Trading in tropical waters
- B) Abandoning to open lifeboat in cold water areas
- C) Always
- D) Never required

Q73. Fire drills on cargo ships must be conducted

- A) Weekly
- B) Monthly
- C) Quarterly
- D) Annually

Q74. SOLAS Chapter VI deals with

- A) Fire safety
- B) Carriage of cargoes and oil fuels
- C) Life saving
- D) Radio

Q75. The purpose of EPIRB (Emergency Position Indicating Radio Beacon) is to

- A) Navigate the ship
- B) Alert SAR authorities and transmit position
- C) Communicate with port
- D) Measure depth

Q76. SART (Search and Rescue Transponder) operates with

- A) VHF radio
- B) Radar (9 GHz)
- C) Satellite
- D) Sonar

Q77. Abandon ship drills must be conducted

- A) Weekly
- B) Monthly
- C) Daily
- D) Yearly

Q78. The international shore connection is used for

- A) Shore power
- B) Fire fighting from shore
- C) Fresh water
- D) Communication

### **MARPOL & POLLUTION PREVENTION**

Q79. MARPOL Annex II regulates

- A) Oil pollution
- B) Noxious liquid substances in bulk
- C) Sewage
- D) Garbage

Q80. MARPOL Annex IV deals with

- A) Oil
- B) Sewage
- C) Garbage
- D) Air pollution

Q81. Under MARPOL Annex VI the global sulfur cap for marine fuel is

- A) 1.0%
- B) 0.5%
- C) 3.5%
- D) 0.1%

Q82. BWM Convention stands for

- A) Bilge Water Management
- B) Ballast Water Management
- C) Boiler Water Monitoring
- D) Bridge Watchkeeping Manual

Q83. Food waste can be discharged at sea when

- A) Never
- B) As far as practicable from land and en route

- C) Only in port
- D) Within 3 nm

Q84. An IOPP Certificate relates to

- A) Garbage management
- B) Oil pollution prevention
- C) Sewage treatment
- D) Air emissions

Q85. The Garbage Record Book is required for ships of

- A) 100 GT and above
- B) 400 GT and above
- C) 500 GT and above
- D) All ships

## **STABILITY & CONSTRUCTION**

Q86. GM (metacentric height) is

- A) Distance between G and B
- B) Distance between G and M
- C) Distance between K and M
- D) Distance between B and M

Q87. A negative GM means

- A) Ship is stable
- B) Ship is unstable
- C) Ship is in equilibrium
- D) No effect on stability

Q88. The righting lever (GZ) is

- A) Vertical distance between B and G
- B) Horizontal distance between verticals through B and G
- C) Distance between M and G
- D) Angle of heel

Q89. Deadweight (DWT) includes

- A) Lightweight only
- B) Cargo, fuel, water, stores, crew
- C) Hull weight only
- D) Machinery weight only

- Q90. Longitudinal stability is controlled by
- A) Free surface
  - B) Trim and longitudinal center of gravity
  - C) Beam
  - D) Draft only

## SECTION 4 MARITIME CURRENT AFFAIRS & GENERAL KNOWLEDGE

Q91. The International Maritime Organization introduced mandatory CII rating in

- A) 2020
- B) 2023
- C) 2025
- D) 2030

Q92. The recent Red Sea shipping crisis 2023–2024 was primarily caused by

- A) Piracy
- B) Houthi attacks on commercial vessels
- C) Port strikes
- D) Weather conditions

Q93. The Suez Canal expansion completed in 2023 focused on

- A) Width increase
- B) Southern section deepening and widening
- C) Lock installation
- D) Length reduction

Q94. Alternative maritime fuels being developed for decarbonization include

- A) Only LNG
- B) Methanol ammonia and hydrogen
- C) Coal
- D) Heavy fuel oil

Q95. The global container shipping alliance known as THE Alliance consists of

- A) Maersk MSC CMA CGM
- B) Hapag Lloyd ONE Yang Ming HMM
- C) Evergreen COSCO
- D) ZIM PIL

Q96. The largest container ship capacity as of 2024 is approximately

- A) 10,000 TEU
- B) 24,000 TEU
- C) 30,000 TEU
- D) 15,000 TEU

Q97. The P&I Clubs provide insurance for

- A) Hull and machinery only
- B) Third party liabilities and crew matters

- C) Cargo damage only
- D) Port fees

Q98. The major shipping registry known as a flag of convenience includes

- A) Norway
- B) Liberia Panama Marshall Islands
- C) United Kingdom only
- D) Japan

Q99. Shore power cold ironing allows ships to

- A) Use ship generators in port
- B) Connect to shore electrical supply reducing emissions
- C) Run engines at idle
- D) Anchor safely

Q100. The Baltic Dry Index measures

- A) Container freight rates
- B) Dry bulk cargo shipping rates
- C) Tanker rates
- D) Port costs

#### **ANSWER KEY:**

**Section 1:** 1-B, 2-B, 3-A, 4-B, 5-B, 6-C, 7-A, 8-B, 9-B, 10-B, 11-B, 12-B, 13-B, 14-A, 15-C, 16-B, 17-C, 18-B, 19-B, 20-B, 21-B, 22-B, 23-A, 24-B, 25-A, 26-B, 27-B, 28-B, 29-A, 30-B, 31-B, 32-C, 33-A, 34-B, 35-A, 36-B, 37-B, 38-B, 39-B, 40-B

**Section 2:** 41-B, 42-C, 43-B, 44-B, 45-B, 46-B, 47-B, 48-B, 49-B, 50-B, 51-B, 52-B, 53-B, 54-B, 55-A, 56-B, 57-B, 58-B, 59-B, 60-A, 61-B, 62-A, 63-C, 64-B, 65-A, 66-A, 67-B, 68-B, 69-B, 70-A

**Section 3:** 71-B, 72-B, 73-B, 74-B, 75-B, 76-B, 77-B, 78-B, 79-B, 80-B, 81-B, 82-B, 83-B, 84-B, 85-B, 86-B, 87-B, 88-B, 89-B, 90-B

**Section 4:** 91-B, 92-B, 93-B, 94-B, 95-B, 96-B, 97-B, 98-B, 99-B, 100-B

#### **DIFFICULTY BREAKDOWN:**

- Easy: 40 questions
- Medium: 40 questions
- Hard: 20 questions

# International Maritime Olympiad 2025 - 100 Sample MCQ Questions - Paper 3

## SECTION 1 NAVIGATION & SEAMANSHIP

### CHART WORK & ELECTRONIC NAVIGATION

Q1. A nautical mile is approximately equal to

- A) 1.609 km
- B) 1.852 km
- C) 2.000 km
- D) 1.500 km

Q2. The international chart symbol for a wreck showing any portion above water is

- A) Dotted circle
- B) Solid black shape
- C) Cross
- D) Asterisk

Q3. ENC stands for

- A) Electronic Nautical Chart
- B) Electronic Navigation Chart
- C) Enhanced Navigation Computer
- D) Emergency Navigation Chart

Q4. Depth contours on a chart connect points of equal

- A) Height
- B) Depth
- C) Distance
- D) Latitude

Q5. The Greenwich Meridian represents

- A) 0° latitude
- B) 0° longitude
- C) 180° longitude
- D) 90° longitude

## **POSITION FIXING & PILOTAGE**

Q6. A position line from a single bearing is called

- A) Running fix
- B) Line of position
- C) Circle of position
- D) Transfer line

Q7. When taking bearings for a fix it is best to have bearings separated by

- A) 15–30°
- B) 60–90°
- C) 180°
- D) 10–20°

Q8. Dead reckoning position is calculated using

- A) Bearings only
- B) Course speed and time
- C) Depth soundings
- D) Radio signals

Q9. A cocked hat in navigation is

- A) Captain's uniform
- B) Triangle formed by three LOPs
- C) Type of buoy
- D) Compass error

Q10. The most accurate position fix is obtained by

- A) Single bearing
- B) GPS
- C) Dead reckoning
- D) Estimated position

## **COMPASS & STEERING**

Q11. Heeling error in a magnetic compass is caused by

- A) Ship's roll and pitch
- B) Speed
- C) Weather
- D) Engine vibration

Q12. The flinders bar is used to correct

- A) Variation
- B) Deviation caused by vertical magnetic fields
- C) Gyro error
- D) Steering error

Q13. Gyro compass settles pointing to

- A) Magnetic north
- B) True north
- C) Grid north
- D) Compass north

Q14. Course to steer is calculated by applying

- A) Leeway and current corrections
- B) Speed only
- C) Time only
- D) Distance only

Q15. Autopilot steering uses feedback from

- A) GPS
- B) Gyro or magnetic compass
- C) Radar
- D) Echo sounder

### **COLREGS SPECIAL SITUATIONS**

Q16. A vessel engaged in fishing other than trawling shall display

- A) Red over white lights
- B) White over red lights
- C) Green over white lights
- D) Three red lights

Q17. According to Rule 9 vessels shall navigate

- A) In the middle of narrow channels
- B) As near to outer limit of channel on starboard side
- C) On port side of channel
- D) Anywhere in channel

Q18. A sailing vessel overtaking a power vessel

- A) Is stand-on vessel

- B) Is give-way vessel
- C) Has right of way
- D) Should maintain speed

Q19. When in doubt about another vessel's intentions you should

- A) Maintain course
- B) Sound five short blasts
- C) Alter to port
- D) Increase speed

Q20. The responsibility between vessels includes

- A) Only give-way vessel taking action
- B) Both vessels taking precautionary action
- C) Stand-on vessel altering course
- D) Neither vessel taking action

## **SHIP DYNAMICS & MANEUVERING**

Q21. When rudder is put hard over the pivot point moves

- A) Forward
- B) Aft towards amidships
- C) To the stern
- D) Does not move

Q22. Tactical diameter is

- A) Final diameter of turn
- B) Distance perpendicular to original course when ship turns 180°
- C) Advance
- D) Transfer

Q23. A vessel with large windage area forward will

- A) Fall off to leeward at bow
- B) Fall off to leeward at stern
- C) Maintain course
- D) Turn into wind

Q24. When going astern in a single-screw ship with right-handed propeller

- A) Stern goes to starboard
- B) Stern goes to port

- C) Ship moves straight
- D) Bow goes to port

Q25. Hydrodynamic forces when ships pass cause

- A) Attraction only
- B) Repulsion only
- C) Attraction and repulsion depending on position
- D) No effect

## **ANCHORING OPERATIONS**

Q26. Anchor is considered foul when

- A) Holding well
- B) Cable wrapped around fluke or another anchor
- C) Just dropped
- D) Being weighed

Q27. To veer cable means to

- A) Heave in cable
- B) Pay out cable
- C) Secure cable
- D) Clear cable

Q28. Up and down refers to anchor cable when

- A) Cable is horizontal
- B) Cable is vertical
- C) Anchor is aweigh
- D) Cable is slack

Q29. Anchor watch is maintained to ensure

- A) Anchor is painted
- B) Anchor is not dragging
- C) Crew is resting
- D) Ship is drifting

Q30. The catenary of anchor cable provides

- A) Decoration
- B) Shock absorption and holding power
- C) No benefit
- D) Speed increase

## **TIDES & TIDAL CALCULATIONS**

Q31. The interval between high waters is approximately

- A) 6 hours
- B) 12 hours 25 minutes
- C) 24 hours
- D) 18 hours

Q32. Duration of rise or fall is approximately

- A) 3 hours
- B) 6 hours
- C) 12 hours
- D) 9 hours

Q33. A diurnal tide has

- A) Two high and two low waters per day
- B) One high and one low water per day
- C) Three high waters per day
- D) Continuous high water

Q34. Chart soundings are usually given in

- A) Feet
- B) Meters
- C) Fathoms
- D) Yards

Q35. Under keel clearance is

- A) Total depth
- B) Depth minus draft
- C) Draft only
- D) Freeboard

## **METEOROLOGY & WEATHER ROUTING**

Q36. Tropical revolving storms are called

- A) Hurricanes Atlantic Typhoons Pacific Cyclones Indian Ocean
- B) All called hurricanes
- C) All called typhoons
- D) All called cyclones

Q37. Buys Ballot's Law states that in Northern Hemisphere if you stand with back to wind

- A) Low pressure is on your left
- B) Low pressure is on your right
- C) Low pressure is behind you
- D) High pressure is on left

Q38. A cold front is characterized by

- A) Warm air advancing
- B) Cold air advancing and lifting warm air
- C) Stationary air
- D) No air movement

Q39. Relative humidity is

- A) Absolute moisture content
- B) Ratio of actual to maximum water vapor at same temperature
- C) Temperature reading
- D) Wind speed

Q40. Weather routing services provide

- A) Port information only
- B) Optimal routes considering weather and sea conditions
- C) Crew schedules
- D) Cargo loading plans

## SECTION 2 MARINE ENGINEERING

### DIESEL ENGINE COMPONENTS & OPERATION

Q41. The function of connecting rod is to

- A) Connect cylinders
- B) Connect piston to crankshaft
- C) Connect valves
- D) Connect fuel injectors

Q42. Fuel injection pressure in modern diesel engines can reach

- A) 100 bar
- B) 500 bar
- C) 2000 bar
- D) 50 bar

Q43. The purpose of a thrust bearing is to

- A) Support radial loads
- B) Take axial thrust from propeller
- C) Connect engine to gearbox
- D) Support crankshaft only

Q44. Cylinder liner wear is primarily caused by

- A) Fuel quality
- B) Corrosion and abrasion
- C) Temperature only
- D) Speed only

Q45. The purpose of exhaust valve timing is to

- A) Control fuel injection
- B) Allow exhaust gases to escape at correct time
- C) Start engine
- D) Cool engine

Q46. Mean effective pressure MEP is

- A) Average pressure during expansion stroke
- B) Maximum cylinder pressure
- C) Atmospheric pressure
- D) Fuel injection pressure

Q47. Fuel injection timing affects

- A) Engine color
- B) Combustion efficiency and emissions
- C) Oil consumption only
- D) Nothing

Q48. The bedplate of an engine

- A) Covers cylinders
- B) Supports main bearings and entire engine structure
- C) Holds fuel
- D) Cools engine

## **FUEL TREATMENT & MANAGEMENT**

Q49. Flash point of fuel oil is

- A) Ignition temperature in engine
- B) Lowest temperature at which vapor ignites momentarily
- C) Maximum storage temperature
- D) Fuel density measure

Q50. Pour point is

- A) Temperature at which fuel vaporizes
- B) Lowest temperature at which fuel flows
- C) Flash point
- D) Ignition temperature

Q51. Centrifuging fuel oil removes

- A) Viscosity
- B) Water and solid particles
- C) Calorific value
- D) Carbon content

Q52. Homogenizer in fuel system

- A) Heats fuel
- B) Breaks up water and particles into finer suspension
- C) Stores fuel
- D) Measures fuel

Q53. The calorific value of fuel represents

- A) Flash point
- B) Heat energy per unit mass
- C) Viscosity
- D) Density

## **LUBRICATION & COOLING SYSTEMS**

Q54. The main functions of lubricating oil are

- A) Cooling only
- B) Lubrication cooling sealing cleaning
- C) Heating only
- D) Fuel mixing

Q55. Total Base Number TBN of lube oil indicates

- A) Viscosity
- B) Alkaline reserve to neutralize acids
- C) Flash point
- D) Density

Q56. Oil mist detector is used to detect

- A) Oil leaks
- B) Potential crankcase explosion conditions
- C) Oil level
- D) Oil temperature

Q57. Thermostatic valve in cooling system

- A) Controls fuel temperature
- B) Controls coolant temperature
- C) Stops engine
- D) Measures pressure

Q58. Lube oil coolers use

- A) Air cooling only
- B) Sea water or fresh water cooling
- C) No cooling
- D) Fuel cooling

## **MACHINERY MAINTENANCE & TROUBLESHOOTING**

Q59. Black smoke from exhaust indicates

- A) Incomplete combustion
- B) Too much air
- C) Perfect combustion
- D) Water in fuel

Q60. White or blue smoke from exhaust suggests

- A) Proper combustion
- B) Lube oil burning
- C) Too much fuel
- D) High load

Q61. Knocking in diesel engine is caused by

- A) Smooth combustion
- B) Rapid pressure rise or ignition delay
- C) Low temperature
- D) Too much oil

Q62. Running hours and counter readings are used for

- A) Speed measurement
- B) Planned maintenance scheduling
- C) Navigation
- D) Cargo operations

Q63. Alignment of main engine and propeller shaft is checked by

- A) Visual inspection
- B) Using feeler gauges and dial indicators
- C) Listening
- D) Timing

## **ELECTRICAL ENGINEERING**

Q64. In a parallel circuit voltage across each component is

- A) Different
- B) Same
- C) Zero
- D) Infinite

Q65. Power factor in AC circuits represents

- A) Voltage level
- B) Ratio of real power to apparent power
- C) Frequency
- D) Current

Q66. A battery capacity is measured in

- A) Volts
- B) Ampere hours Ah
- C) Watts
- D) Ohms

Q67. The purpose of a fuse is to

- A) Increase current
- B) Protect circuit by melting during overload
- C) Measure voltage
- D) Store energy

Q68. An inverter converts

- A) AC to DC
- B) DC to AC
- C) High voltage to low voltage
- D) Low voltage to high voltage

Q69. Earthing or grounding of electrical equipment is for

- A) Decoration
- B) Safety and fault current path
- C) Increasing efficiency
- D) Color coding

Q70. Main switchboard distributes

- A) Water
- B) Electrical power throughout ship
- C) Fuel
- D) Compressed air

## SECTION 3 MARITIME REGULATIONS & SAFETY

### SOLAS LIFE SAVING & EMERGENCY

Q71. Muster list must show

- A) Cargo manifest
- B) Emergency duties of all crew members
- C) Passenger list
- D) Port rotation

Q72. General emergency alarm signal consists of

- A) One long blast
- B) Seven short blasts followed by one long blast
- C) Three short blasts
- D) Continuous ringing

Q73. Liferafts must be

- A) Manually inflated only
- B) Capable of automatic or manual inflation
- C) Pre inflated
- D) Not inflatable

Q74. Survival craft distress signals include

- A) Only radio
- B) Flares smoke signals mirrors lights
- C) Flags only
- D) Nothing required

Q75. Thermal protective aids TPA are provided in

- A) Engine room
- B) Lifeboats and liferafts
- C) Bridge
- D) Galley

Q76. MOB recovery systems include

- A) Only lifebuoys
- B) Lifebuoys rescue boats recovery nets
- C) Swimming only
- D) Nothing

Q77. SOLAS requires ships to carry

- A) No charts
- B) Adequate and up to date charts and publications
- C) One old chart
- D) Digital only

Q78. Fire control plans must be displayed

- A) In captain cabin only
- B) In protected boxes on deck for shore fire fighters
- C) Not required
- D) In engine room only

## **MARPOL ENVIRONMENTAL PROTECTION**

Q79. MARPOL Annex III covers

- A) Oil
- B) Harmful substances in packaged form
- C) Sewage
- D) Air pollution

Q80. Ships trading in ECAs must use fuel with sulfur content not exceeding

- A) 3.5 percent
- B) 0.5 percent
- C) 0.1 percent
- D) 1.0 percent

Q81. The Oil Record Book Part I records

- A) Cargo operations
- B) Machinery space operations
- C) Passenger records
- D) Crew wages

Q82. Under MARPOL Annex V plastics may be discharged

- A) Anywhere
- B) Never
- C) Beyond 12 nm
- D) In special areas only

Q83. Energy Efficiency Design Index EEDI applies to

- A) Old ships only

- B) New ships to improve energy efficiency
- C) Small ships only
- D) No ships

Q84. Ship Energy Efficiency Management Plan SEEMP is

- A) Optional
- B) Mandatory for all ships
- C) For tankers only
- D) Not required

Q85. Anti fouling systems containing TBT are

- A) Encouraged
- B) Prohibited
- C) Mandatory
- D) Optional

## **LOAD LINE & TONNAGE**

Q86. Summer load line is marked as

- A) T
- B) S
- C) W
- D) F

Q87. Freeboard is measured from

- A) Keel to waterline
- B) Deck line to waterline
- C) Top of mast to waterline
- D) Bottom to top

Q88. Gross Tonnage GT represents

- A) Weight of ship
- B) Total internal volume of ship
- C) Cargo capacity
- D) Fuel capacity

Q89. Net Tonnage NT represents

- A) Empty weight
- B) Earning capacity volume

- C) Maximum cargo weight
- D) Total ship weight

Q90. A ship displacement is

- A) Speed
- B) Weight of water displaced
- C) Length
- D) Width

## SECTION 4 MARITIME CURRENT AFFAIRS & GENERAL KNOWLEDGE

Q91. The Ever Given container ship blocked the Suez Canal in

- A) 2019
- B) March 2021
- C) 2023
- D) 2020

Q92. FuelEU Maritime regulation came into force in

- A) 2020
- B) 2025
- C) 2023
- D) 2030

Q93. The largest LNG carrier capacity as of 2024 is approximately

- A) 100000 cubic meters
- B) 175000 cubic meters
- C) 266000 cubic meters
- D) 50000 cubic meters

Q94. The Maritime Labour Convention ensures

- A) Cargo safety
- B) Decent working conditions for seafarers
- C) Ship speed
- D) Port operations

Q95. Just in Time arrival at ports aims to

- A) Rush operations
- B) Reduce emissions by optimizing speed
- C) Delay ships
- D) Increase fuel consumption

Q96. The latest version of STCW as amended is

- A) Manila Amendments 2010
- B) London Amendments 2015
- C) Paris Amendments 2020
- D) Sydney Amendments 2023

Q97. Autonomous ships are being developed with automation levels defined by

- A) Random classification

- B) IMO degrees 1 to 4
- C) No classification
- D) Only manual operation

Q98. Electronic Bill of Lading adoption is driven by

- A) Paper savings only
- B) Digitalization speed and security
- C) Fashion trends
- D) No benefit

Q99. The concept of slow steaming means

- A) Stopping ships
- B) Reducing ship speed to save fuel and emissions
- C) Maximum speed
- D) Anchoring

Q100. The Hong Kong Convention deals with

- A) Port operations
- B) Ship recycling
- C) Navigation rules
- D) Cargo handling

#### **ANSWER KEY:**

**Section 1:** 1-B, 2-B, 3-B, 4-B, 5-B, 6-B, 7-B, 8-B, 9-B, 10-B, 11-A, 12-B, 13-B, 14-A, 15-B, 16-A, 17-B, 18-B, 19-B, 20-B, 21-B, 22-B, 23-A, 24-B, 25-C, 26-B, 27-B, 28-B, 29-B, 30-B, 31-B, 32-B, 33-B, 34-B, 35-B, 36-A, 37-A, 38-B, 39-B, 40-B

**Section 2:** 41-B, 42-C, 43-B, 44-B, 45-B, 46-A, 47-B, 48-B, 49-B, 50-B, 51-B, 52-B, 53-B, 54-B, 55-B, 56-B, 57-B, 58-B, 59-A, 60-B, 61-B, 62-B, 63-B, 64-B, 65-B, 66-B, 67-B, 68-B, 69-B, 70-B

**Section 3:** 71-B, 72-B, 73-B, 74-B, 75-B, 76-B, 77-B, 78-B, 79-B, 80-C, 81-B, 82-B, 83-B, 84-B, 85-B, 86-B, 87-B, 88-B, 89-B, 90-B

**Section 4:** 91-B, 92-B, 93-C, 94-B, 95-B, 96-A, 97-B, 98-B, 99-B, 100-B

#### **DIFFICULTY BREAKDOWN:**

- Easy Questions: 40
- Medium Questions: 40
- Hard Questions: 20

## STUDY TIPS FOR MARITIME OLYMPIAD

1. **Navigation Focus** on practical chart work, COLREGS interpretation, and vessel handling scenarios
2. **Engineering:** Understand basic principles rather than memorizing, focus on diesel engines and safety systems
3. Regulations Stay updated with the latest **SOLAS MARPOL amendments** and **maritime current events**
4. **Current Affairs:** Follow maritime news, major incidents, new regulations, and industry trends
5. **Practice solving previous papers** under timed conditions
6. **Conceptual Understanding:** Do not just memorize, understand why things work the way they do