1. A vessel is constructed with a steel hull and an aluminum superstructure. Which statement is TRUE?
   A. The aluminum will provide greater resistance to the spread of fire by conduction.
   B. The aluminum structure is usually attached to a steel coaming by a method that insulates the two metals.
   C. If the superstructure is stressed, an aluminum structure requires additional expansion joints to prevent fracture.
   D. The steel at the area of the aluminum-to-steel connection must be closely checked for galvanic corrosion.

2. The point that is halfway between the forward and after perpendicular and is a reference point for vessel construction is the __________.
   A. half length    C. center line
   B. mid-body       D. amidships

3. What term indicates the line drawn at the top of the flat plate keel?
   A. Base line  C. Designer’s waterline
   B. Molded line D. Keel line

4. The usual depth of a beam bracket is __________.
   A. 2 1/2 times the depth of the beam  C. 10 times the depth of the beam
   B. 5 times the depth of the beam       D. same depth as the beam

5. The body plan of a vessel is a(n) __________.
   A. endwise view of the ship’s molded form
   B. longitudinal side elevation view
   C. plan made looking down on the ship, showing it’s hull cut horizontally by the first set of planes
   D. vertical view made looking up in the ship, with the keel at the center

6. To rigidly fasten together the peak frames, the stem, and the outside framing, a horizontal plate is fitted across the forepeak of a vessel. This plate is known as a(n) __________.
   A. apron plate  C. intercostal plate
   B. breasthook   D. joiner

7. Beams are cambered to __________.
   A. increase their strength  C. relieve deck stress
   B. provide drainage from the decks  D. All of the above

8. Camber, in a ship, is usually measured in __________.
   A. feet per feet of breadth  C. inches per feet of breadth
   B. feet per feet of length   D. inches per feet of length

9. Which term refers to a transverse curvature of the deck?
   A. Deadrise  B. Camber  C. Freeboard  D. Flare
10  1557  Ref: Construction, Cant Frame  B
What is the purpose of cant frames in steel vessels?
A. To support the overhang of the stern
B. To provide strength to shell plating at the stern
C. To add strength to the deck beams which support the weather decks
D. To support the plating of a cylindrical tank

11  53    Ref: Construction, Carling  B
A carling is used aboard ship __________.
A. as a connecting strap between the butted ends of plating
B. to stiffen areas under points of great stress between beams
C. to prevent the anchor from fouling when the brake is released
D. to provide an extra heavy fitting in a heavy lift cargo rig

12  1438  Ref: Construction, Cofferdam  C
What is a cofferdam?
A. Tube fitted to an ullage hole  C. Void or empty space separating two tanks
B. Area the product is loaded into  D. Opening in the deck used for cleaning a tank

13  762 Ref: Construction, Collision Bulkhead  D
On a small passenger vessel the collision bulkhead is __________.
A. amidships forward of the engine room
B. just forward of the steering compartment
C. in the engine room
D. A distance of 5% to 15% of the waterline length abaft the stem measured at the load waterline

14  1290 Ref: Construction, Dead rise  C
The upward slope of a ship's bottom from the keel to the bilge is known as __________.
A. camber  C. deadrise
B. slope  D. keel height

15  1291 Ref: Construction, Dead rise  D
The upward slope of a vessel's bottom from the keel to the bilge is called __________.
A. camber  C. rake
B. sheer  D. rise of bottom

16  2099 Ref: Construction, Dead rise  A
Which term indicates the rise in height of the bottom plating from the plane of the base line?
A. Deadrise  C. Molded height
B. Camber  D. Sheer

17  80   Ref: Construction, Deck Beam  B
A deck beam does NOT __________.
A. act as a beam to support vertical deck loads
B. lessen the longitudinal stiffness of the vessel
C. act as a tie to keep the sides of the ship in place
D. act as a web to prevent plate wrinkling due to twisting action on the vessel

18  950 Ref: Construction, Deck Beam  C
The deck beam brackets of a transversely framed vessel resist __________.
A. hogging stresses
B. sagging stresses
C. racking stresses
D. shearing stresses
19 1232 Ref: Construction, Deck Beam
The strength of a deck will be increased by adding __________.
A. camber C. hatch beams
B. deck beam brackets D. sheer

20 802 Ref: Construction, Drop Strake
Owing to the greater girth of a ship amidships than at the ends, certain strakes are dropped as they approach the bow and stern to reduce the amount of plating at the ends. These strakes are called __________.
A. drop strakes C. throughs
B. stealers D. voids

21 1607 Ref: Construction, Entrance
What term indicates the immersed body of the vessel forward of the parallel mid-body?
A. Run C. Entrance
B. Flare D. Sheer

22 1222 Ref: Construction, Fidley
The space above the engine room is called the __________.
A. fidley C. middle hatch
B. gold locker D. noble

23 1306 Ref: Construction, Fillet Welds
The welds used to attach stiffeners to a plate are known as __________.
A. butt welds C. fillet welds
B. seam welds D. plate welds

24 1611 Ref: Construction, Flare
What term indicates the outward curvature of the hull above the waterline?
A. sheer C. deadrise
B. tumble home D. flare

25 670 Ref: Construction, Frame Space
In ship construction, frame spacing is __________.
A. greater at the bow and stern
B. reduced at the bow and stern
C. uniform over the length of the vessel
D. uniform over the length of the vessel, with the exception of the machinery spaces, where it is reduced due to increased stresses

26 527 Ref: Construction, Freeboard
Freeboard is measured from the upper edge of the __________.
A. bulwark C. gunwale bar
B. deck line D. sheer strake

27 837 Ref: Construction, Furnaced Plate
Shell plating that has curvature in two directions and must be heated and hammered to shape over specially prepared forms is called __________.
A. compound plate C. flat plate
B. furnaced plate D. rolled plate

28 1165 Ref: Construction, Gudgeons
The projecting lugs of the rudderpost which furnish support to the rudder are called __________.
A. bases C. pintles
B. gudgeons D. rudder lugs

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29  1001 Ref: Construction, Half-Breath Plan
The half-breath plan is __________.
A. an endwise view of the ship's molded form
B. a plan with the forebody to right of centerline and afterbody to the left of centerline
C. a longitudinal side elevation
D. usually drawn for the port side only

30  866 Ref: Construction, Joints, Grip
The "grip" of a joint represents the __________.
A. thickness of the connected members
B. diameter of the head
C. entire length of the rivet
D. diameter of the shank

31  21 Ref: Construction, Joints, Riveted
A "liner" in riveted construction of a vessel is a(n) __________.
A. small plate which fills the aperture between riveted strakes and the vessel framing
B. backing plate which is used to level the strakes while riveting, and then removed
C. internal
D. seam th

32  358 Ref: Construction, Joints, Riveted
After riveting is completed, the joints on the shell of a vessel are generally made watertight by __________.
A. faying
B. caulking
C. felt or canvas packing
D. red lead

33  547 Ref: Construction, Joints, Riveted
How are riveted lap joints made watertight?
A. The faying surfaces are coated with white lead (or similar product) before the rivets are set.
B. A sealing weld bead of 1/8" or less pitch is run along the plate edge.
C. The plate edge is split close to an adjacent plate and mechanically forced into contact with the adjacent plate.
D. A properly riveted joint will be watertight; any leakage is stopped by setting up on the rivets.

34  826 Ref: Construction, Joints, Riveted
Rivets are usually made of __________.
A. wrought-iron
B. aluminum
C. high-tensile steel
D. mild steel

35  959 Ref: Construction, Joints, Riveted
The distance between rivets in a row is known as the __________.
A. arm
B. pitch
C. gage
D. rivet distance

36  1286 Ref: Construction, Joints, Riveted
The type of joint formed when a third small plate is riveted over two plates butted together is called a __________.
A. butted joint
B. lap joint
C. strap joint
D. stringer joint

37  1287 Ref: Construction, Joints, Riveted
The type of joint formed when an edge of one plate is laid over the edge of the plate to which it is riveted is a __________.
A. grip joint
B. strap joint
C. thread joint
D. lap joint

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</thead>
<tbody>
<tr>
<td>38 1293</td>
<td>The use of liners in riveted construction is eliminated by using __________.</td>
<td>C</td>
<td></td>
</tr>
<tr>
<td>A. lapped construction</td>
<td>C. joggled construction</td>
<td></td>
<td></td>
</tr>
<tr>
<td>B. strapped construction</td>
<td>D. belted construction</td>
<td></td>
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<tr>
<td>39 1738</td>
<td>When riveted joints occur at the ends of plating they are called __________.</td>
<td>D</td>
<td></td>
</tr>
<tr>
<td>A. trailers</td>
<td>C. seams</td>
<td></td>
<td></td>
</tr>
<tr>
<td>B. terminals</td>
<td>D. butts</td>
<td></td>
<td></td>
</tr>
<tr>
<td>40 2066</td>
<td>Which statement is true concerning repairs on the hull of a vessel which is to be riveted and welded?</td>
<td>C</td>
<td></td>
</tr>
<tr>
<td>A. Riveting must be completed before welding begins.</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>B. Riveting and welding should be done alternately.</td>
<td></td>
<td></td>
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<tr>
<td>C. Welding must be completed before the riveting begins.</td>
<td></td>
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<tr>
<td>D. It does not matter in what order the operations are done.</td>
<td></td>
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<tr>
<td>41 671</td>
<td>In ship construction, keel scantlings should be the greatest __________.</td>
<td>B</td>
<td></td>
</tr>
<tr>
<td>A. at each frame</td>
<td>C. one-third the distance from the bow</td>
<td></td>
<td></td>
</tr>
<tr>
<td>B. amidships</td>
<td>D. one-third the distance from the stern</td>
<td></td>
<td></td>
</tr>
<tr>
<td>42 709</td>
<td>Keel scantlings of any vessel are greatest amidships because __________.</td>
<td>B</td>
<td></td>
</tr>
<tr>
<td>A. connections between forebody and afterbody are most crucial</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>B. of maximum longitudinal bending moments</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>C. of severest racking stresses</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>D. resistance to grounding is at a maximum amidships</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>43 113</td>
<td>A Kort nozzle is a(n) __________.</td>
<td>A</td>
<td></td>
</tr>
<tr>
<td>A. hollow tube surrounding the propeller used to improve thrust</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>B. nozzle attached to a firefighting hose</td>
<td></td>
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<tr>
<td>C. intake valve on a diesel engine</td>
<td></td>
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<tr>
<td>D. piston cylinder on a diesel engine</td>
<td></td>
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<tr>
<td>44 1608</td>
<td>What term indicates the length measured along the summer load line from the intersection of that load line with the foreside of the stem and the intersection of that load line with the aft side of the rudder post?</td>
<td>C</td>
<td></td>
</tr>
<tr>
<td>A. Length overall</td>
<td>C. Length between perpendiculars</td>
<td></td>
<td></td>
</tr>
<tr>
<td>B. Register length</td>
<td>D. Length on the waterline</td>
<td></td>
<td></td>
</tr>
<tr>
<td>45 1348</td>
<td>Transverse frames are more widely spaced on a ship that is designed with the __________.</td>
<td>C</td>
<td></td>
</tr>
<tr>
<td>A. centerline system of framing</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>B. isometric system of framing</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>C. longitudinal system of framing</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>D. transverse system of framing</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>46 1764</td>
<td>When the longitudinal strength members of a vessel are continuous and closely spaced, the vessel is __________.</td>
<td>B</td>
<td></td>
</tr>
<tr>
<td>A. transversely framed</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>B. longitudinally framed</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>C. intermittently framed</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>D. web framed</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Question Number</td>
<td>Ref: Construction, Longitudinal Strength</td>
<td>Answer</td>
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<td>-----------------</td>
<td>----------------------------------------</td>
<td>--------</td>
<td></td>
</tr>
<tr>
<td>47</td>
<td>What would have the greatest affect on a vessel's longitudinal strength?</td>
<td>B</td>
<td></td>
</tr>
<tr>
<td>A. Collision damage to the bow, forward of the collision bulkhead</td>
<td>A</td>
<td></td>
<td></td>
</tr>
<tr>
<td>B. Grounding damage to the bilge strake, just aft of amidships</td>
<td>B</td>
<td></td>
<td></td>
</tr>
<tr>
<td>C. Extensive corrosion to the centerline deck plating</td>
<td>C</td>
<td></td>
<td></td>
</tr>
<tr>
<td>D. Damage to the side shell, midway between the bilge and the stringer plate</td>
<td>D</td>
<td></td>
<td></td>
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<tr>
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</tr>
</thead>
<tbody>
<tr>
<td>48</td>
<td>The &quot;margin plate&quot; is the ________</td>
<td>A</td>
</tr>
<tr>
<td>A. Outboard strake of plating on each side of an inner bottom</td>
<td>A</td>
<td></td>
</tr>
<tr>
<td>B. outer strake of plating on each side of the main deck of a vessel</td>
<td>B</td>
<td></td>
</tr>
<tr>
<td>C. plate which sits atop the center vertical keel</td>
<td>C</td>
<td></td>
</tr>
<tr>
<td>D. uppermost continuous strake of plating on the shell of a vessel</td>
<td>D</td>
<td></td>
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</thead>
<tbody>
<tr>
<td>49</td>
<td>The terms &quot;ceiling&quot; and &quot;margin plate&quot; are associated with the ________</td>
<td>D</td>
</tr>
<tr>
<td>A. crew's quarters</td>
<td>A</td>
<td></td>
</tr>
<tr>
<td>B. engine room</td>
<td>B</td>
<td></td>
</tr>
<tr>
<td>C. main deck</td>
<td>C</td>
<td></td>
</tr>
<tr>
<td>D. tank top</td>
<td>D</td>
<td></td>
</tr>
</tbody>
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<tr>
<th>Question Number</th>
<th>Ref: Construction, Middle Body</th>
<th>Answer</th>
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</thead>
<tbody>
<tr>
<td>50</td>
<td>What term indicates the amidships portion of a vessel that has a constant cross section?</td>
<td>C</td>
</tr>
<tr>
<td>A. Half length</td>
<td>A</td>
<td></td>
</tr>
<tr>
<td>B. Amidships</td>
<td>B</td>
<td></td>
</tr>
<tr>
<td>C. Middle body</td>
<td>C</td>
<td></td>
</tr>
<tr>
<td>D. Molded length</td>
<td>D</td>
<td></td>
</tr>
</tbody>
</table>

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<tr>
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</thead>
<tbody>
<tr>
<td>51</td>
<td>What descriptive term indicates that the dimension is measured from the inner face of the shell or deck plating?</td>
<td>A</td>
</tr>
<tr>
<td>A. Molded</td>
<td>A</td>
<td></td>
</tr>
<tr>
<td>B. Register</td>
<td>B</td>
<td></td>
</tr>
<tr>
<td>C. Tonnage</td>
<td>C</td>
<td></td>
</tr>
<tr>
<td>D. Effective</td>
<td>D</td>
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<tr>
<td>52</td>
<td>Molded depth is measured from the ________</td>
<td>A</td>
</tr>
<tr>
<td>A. inside of the shell</td>
<td>A</td>
<td></td>
</tr>
<tr>
<td>B. outside of the shell</td>
<td>B</td>
<td></td>
</tr>
<tr>
<td>C. top of the center vertical keel</td>
<td>C</td>
<td></td>
</tr>
<tr>
<td>D. top of the garboard stake</td>
<td>D</td>
<td></td>
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<tbody>
<tr>
<td>53</td>
<td>A partial deck in a hold is called a(n) ________</td>
<td>B</td>
</tr>
<tr>
<td>A. weather deck</td>
<td>A</td>
<td></td>
</tr>
<tr>
<td>B. orlop deck</td>
<td>B</td>
<td></td>
</tr>
<tr>
<td>C. shelter deck</td>
<td>C</td>
<td></td>
</tr>
<tr>
<td>D. main deck</td>
<td>D</td>
<td></td>
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<tr>
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</thead>
<tbody>
<tr>
<td>54</td>
<td>A term applied to the bottom shell plating in a double-bottom ship is ________</td>
<td>B</td>
</tr>
<tr>
<td>A. bottom floor</td>
<td>A</td>
<td></td>
</tr>
<tr>
<td>B. outer bottom</td>
<td>B</td>
<td></td>
</tr>
<tr>
<td>C. shear plating</td>
<td>C</td>
<td></td>
</tr>
<tr>
<td>D. tank top</td>
<td>D</td>
<td></td>
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<tr>
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</thead>
<tbody>
<tr>
<td>55</td>
<td>Panting frames are located in the ________</td>
<td>C</td>
</tr>
<tr>
<td>A. after double bottoms</td>
<td>A</td>
<td></td>
</tr>
<tr>
<td>B. centerline tanks on tankships</td>
<td>B</td>
<td></td>
</tr>
<tr>
<td>C. fore and after peaks</td>
<td>C</td>
<td></td>
</tr>
<tr>
<td>D. forward double bottoms</td>
<td>D</td>
<td></td>
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<tr>
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<tbody>
<tr>
<td>56</td>
<td>The maximum length allowed between main, transverse bulkheads on a vessel is referred to as the ________</td>
<td>D</td>
</tr>
<tr>
<td>A. floodable length</td>
<td>A</td>
<td></td>
</tr>
<tr>
<td>B. factor of subdivision</td>
<td>B</td>
<td></td>
</tr>
<tr>
<td>C. compartment standard</td>
<td>C</td>
<td></td>
</tr>
<tr>
<td>D. permissible length</td>
<td>D</td>
<td></td>
</tr>
</tbody>
</table>
57 1155 Ref: Construction, Pitch  C
The pitch of a propeller is a measure of the __________.
A. angle that the propeller makes with a free stream of water
B. angle that the propeller makes with the surface of the water
C. number of feet per revolution the propeller is designed to advance in still water without slip
D. positive pressure resulting from the difference of the forces on both sides of the moving propeller in still water without slip

58 1483 Ref: Construction, Plate Stress  C
What is NOT an advantage of ship construction methods using welded butt joints in the shell plating?
A. Keeps practically 100% of tensile strength at the joints
B. Reduces frictional resistance
C. Reduces plate stress
D. Reduces weight

59 1869 Ref: Construction, Plate Stress  D
Which is NOT an advantage of the flush method of welded shell plating?
A. Reduces weight
B. Reduces frictional resistance
C. Keeps practically 100% of tensile strength at the joints
D. Reduces plate stress

60 841 Ref: Construction, Racking Stress  B
Signs of racking stresses generally appear at the __________.
A. bow and stern shell frames and plating  C. garboard strake, at each side of the keel
B. junction of the frames with the beams and floors  D. thrust bearing of the main shaft

61 1173 Ref: Construction, Rudder, Aspect Ratio  A
The ratio of the height of a vessel's rudder to its width is referred to as the __________.
A. aspect ratio  C. rudder ratio
B. constriction ratio  D. steering ratio

62 17 Ref: Construction, Rudder  D
A "contra-guide" is a type of __________.
A. bow thruster  C. steering engine
B. cargo gear  D. rudder

63 1264 Ref: Construction, Rudder  C
The term "pintle" and "gudgeon" are associated with the __________.
A. anchor windlass  C. rudder
B. jumbo boom  D. steering engine

64 1014 Ref: Construction, Rudder Palms  B
The horizontal flat surfaces where the upper stock joins the rudder are the __________.
A. rudder keys  C. lifting flanges
B. rudder palms  D. shoes of the rudder

65 1606 Ref: Construction, Run  A
What term indicates the immersed body of the vessel aft of the parallel mid-body?
A. Run  C. Counter
B. Stern  D. Flow

66 1265 Ref: Construction, Scantlings  B
The term "scantlings" refers to the __________.
A. draft of a vessel  C. requirements for ship's gear
B. measurements of structural members  D. placement of a vessel's load line
### Construction

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<th>Ref:</th>
<th>Section</th>
<th>Option A</th>
<th>Option B</th>
<th>Option C</th>
<th>Option D</th>
</tr>
</thead>
<tbody>
<tr>
<td>67 1171</td>
<td>Construction, Sheer</td>
<td>A</td>
<td>B. eliminate the need for butt straps</td>
<td>C. eliminate the need for margin plates</td>
<td>D. give greater strength at the deck edge</td>
<td>A. allow the ship to ride waves with drier decks</td>
</tr>
<tr>
<td>68 1201</td>
<td>Construction, Sheer</td>
<td>A</td>
<td>D. has the forebody to the right of centerline and afterbody to the left of centerline</td>
<td>C. is usually drawn for the port side only</td>
<td>B. is an endwise view of the ship's molded form</td>
<td>A. shows a longitudinal side elevation</td>
</tr>
<tr>
<td>69 1604</td>
<td>Construction, Sheer</td>
<td>C</td>
<td>A. Deadrise</td>
<td>C. Sheer</td>
<td>B. Camber</td>
<td>D. Flare</td>
</tr>
<tr>
<td>70 1177</td>
<td>Construction, Sheer Stress</td>
<td>C</td>
<td>A. Tensile</td>
<td>C. Shear</td>
<td>B. Compression</td>
<td>D. Strain</td>
</tr>
<tr>
<td>71 1199</td>
<td>Construction, Sheer Stress</td>
<td>D</td>
<td>A. the bow</td>
<td>C. amidships</td>
<td>B. the stern</td>
<td>D. the ship's quarter-length points</td>
</tr>
<tr>
<td>72 836</td>
<td>Construction, Shell Plating</td>
<td>C</td>
<td>A. the galvanizing on steel</td>
<td>C. the outer plating of a vessel</td>
<td>B. a hatch cover</td>
<td>D. synonymous with decking</td>
</tr>
<tr>
<td>73 1815</td>
<td>Construction, Shell Plating</td>
<td>B</td>
<td>A. Clinker</td>
<td>B. Flush</td>
<td>C. In-and-Out</td>
<td>D. Joggled</td>
</tr>
<tr>
<td>74 977</td>
<td>Construction, Skeg</td>
<td>C</td>
<td>A. boss</td>
<td>B. knuckle</td>
<td>C. skeg</td>
<td>D. strut</td>
</tr>
<tr>
<td>75 439</td>
<td>Construction, Spar Deck</td>
<td>C</td>
<td>A. lower most continuous deck not broken by water tight bulkheads</td>
<td>B. after most weather deck above the main strength deck</td>
<td>C. upper or weather deck above the main strength deck</td>
<td>D. deck of light construction below the main or strength deck</td>
</tr>
</tbody>
</table>
To reduce the number of strakes at the bow, two strakes are tapered and joined at their ends by a single plate. This plate is known as a __________.
A. cover plate  C. lap strake
B. joiner          D. stealer plate

The terms "cant frame" and "counter" are associated with the vessel's __________.
A. cargo hatch  C. steering engine
B. forecastle    D. stern

On a single-screw vessel the stern frame __________.
A. furnishes support to the rudder, propeller shaft, and transom frame
B. provides foundations for after mooring winches
C. provides foundations for the main propulsion engines
D. transfers the driving force of the propeller to the hull

Reinforcing frames attached to a bulkhead on a vessel are called __________.
A. side longitudinals  C. stiffeners
B. intercostals          D. brackets

Vertical structural members attached to the floors that add strength to the floors are called __________.
A. boss plates  C. stiffeners
B. buckler plates    D. breast hooks

The term "strake" is used in reference to __________.
A. rudder mountings  C. hull plating
B. anchor gear    D. vessel framing

The fore and aft run of deck plating which strengthens the connection between the beams and the frames and keeps the beams square to the shell is called the __________.
A. garboard strake
B. limber strake
C. sheer strake
D. stringer strake

Lighter longitudinal stiffening frames on the vessel's side plating are called __________.
A. stringers
B. side frames
C. side stiffeners
D. intercostals

A vessel's bottom will be subjected to tension when weight is concentrated __________.
A. amidships
B. aft
C. at both ends of the vessel
D. forward
Tensile stress is a result of two forces acting in __________.
A. opposite directions on the same line, tending to pull the material apart
B. opposite directions on the same line, tending to compress the object
C. opposite directions along parallel lines
D. the same direction along parallel lines

Weight concentration in which area will cause a vessel's bottom to be subjected to tension stresses?
A. Aft
B. Amidships
C. At both ends
D. Forward

A vessel having continuous closely spaced transverse strength members is __________.
A. longitudinally framed
B. transversely framed
C. cellular framed
D. web framed

Why are most break bulk vessels built with the transverse framing system rather than the longitudinal system?
A. The transverse system is more resistant to hog and sag stresses.
B. The numerous longitudinal frames cause excessive broken stowage.
C. The transverse system provides better support to the varying cargo densities on a break bulk vessel.
D. The deep web frames interfere with the stowage of break bulk cargo.

What term indicates an inward curvature of the ship's hull above the waterline?
A. Camber
B. Tumble home
C. Deadrise
D. Flare

In a longitudinally-framed ship, the longitudinal frames are held in place and supported by athwartship members called __________.
A. floors
B. margin plates
C. stringers
D. web frames

In a transversely framed ship, the transverse frames are supported by all of the following EXCEPT __________.
A. girders
B. longitudinals
C. side stringers
D. web plates
92 1357 Ref: Construction, Weld Testing
Ultrasonic testing is used to determine the thickness of a vessel's shell plating and to __________.
A. provide tail shaft clearances
B. test welds for subsurface defects
C. check the wear of the rudder carrier bearing
D. test the links of the anchor cables while being ranged

93 2127 Ref: Construction, Weld Testing
Which type of weld testing can be used to detect internal flaws?
A. Radiographic
B. Magnetic particle
C. Dye penetrant
D. Chemical reaction

94 2128 Ref: Construction, Weld Testing
Which type of weld testing can be used to detect internal flaws?
A. Magnetic particle
B. Dye penetrant
C. Ultrasonic
D. Chemical reaction

95 2139 Ref: Construction, Weld Testing
Which weld fault can only be detected by a method that examines the internal structure of a weld?
A. Undercut
B. Lack of reinforcement
C. Overlap
D. Lack of penetration

96 328 Ref: Construction, Welding
A welded joint's effectiveness is considered __________.
A. 48%  C. 100%
B. 90%    D. 121%

97 1288 Ref: Construction, Welding
The type of welding employed in shipyards is primarily __________.
A. brazing
B. electric arc
C. pressure welding
D. thermite welding

98 1614 Ref: Construction, Welding
What welding pattern is NOT used to permanently attach a stiffener to a plate?
A. Chain intermittent
B. Tack
C. Continuous
D. Staggered intermittent

99 848 Ref: Construction, Welding/Riveting
Sometimes it is desirable to connect a member both by riveting and welding. Which statement is TRUE concerning this procedure?
A. Tearing through the member is more likely in this type connection.
B. The weld may be broken by the stresses caused by riveting.
C. The weld increases the tensile stress on the rivet heads.
D. The welding must be completed before the riveting commences.