

OIC - NW: COMPETENCE 13

Maintain Seaworthiness of the Ship

1	A vessel subject to sagging has what condition?			
	Bottom plating under tensile stress	Main deck under tensile stress	Transverse bending	Superstructure under tensile stress
2	Aboard a vessel, dividing the sum of the longitudinal moments by the total weight yields the vessel's:			
	inclining moments	righting moments	vertical moments	longitudinal position of the center of gravity
3	Adding the FSCL to KG yields:			
	KM	GM	KGT	KGL
4	After jacking down your liftboat you have an unexpected list. You find that the only cause of this list must be a flooded leg. To keep adequate stability you should:			
	get underway with the flooded leg ONLY half raised to reduce KG	proceed with all legs half raised to lower KG	pump out all ballast to increase reserve buoyancy	jack back up and ballast the vessel's high side as necessary
5	An empty compartment has a permeability of how many percent?			
	100%	80-85%	30-60%	0%
6	As a rough estimate _____ occurs at the maximum deck edge immersion.			
	angle of heel	vanishing angle	angle of loll	maximum angle
7	At an angle of loll, the capsizing moment is:			
	maximum	negative	positive	zero
8	By definitions, a "Spar Deck" is the:			
	lower most continuous deck broken by water tight	upper or weather deck above the main strength deck	after most weather deck above the main strength deck	deck of light construction below the main or strength deck

9	Decreasing the free surfaces within a vessel, reduces the:			
	natural roll period	metacentric height	natural roll period	metacentric height
10	For a given displacement, the righting arm has its maximum value when:			
	KG is minimum	Angle of inclination is a maximum	Small-angle stability applies	KM is a minimum
11	Free communication will adversely affect transverse stability only when the flooded space is:			
	off-center	on the centerline	completely flooded	open to the sea above and below the waterline
12	How would you make the rolling of a stiff vessel comfortable?			
	Ballast the after peak tanks	Add weight in the center line of the lower hold	Move weights lower	Concentrate the weight on upper wing tween deck
13	If a vessel loses its reserve buoyancy, it will:			
	float upright with the main deck awash	capsize and float on its side	remain unaffected if the hull remains intact	most likely sink
14	If the result loading a vessel is an increase in the height of the center of gravity there will always be an increase in the:			
	metacentric height	righting arm	righting moments	vertical moments
15	If the VCG of the ship rises 1.7 feet, the GZ for the various angles of inclination will:			
	increase	Decrease	be changed by the amount of $GG' X$ cosine of the angle	remain unchanged
16	If you subtract KG from KM, the result is:			
	height of the righting arm	metacentric height	height of the metacenter	height of the center gravity

17	In observing rig motion while under tow, the period of roll is the time difference between:			
	zero inclination to full inclination on one side	full inclination on one side to full inclination on the other side	full inclination on one side to the next full inclination on the same side	zero inclination to the next zero inclination
18	In plugging submerged holes, rags, wedges and other materials should be used in conjunction with plugs to:			
	reduce the water leaking around the plugs	reduce the possibility of stress fractures	prevent progressive flooding	reduce the water pressure on the hull
19	In small-angle stability, when external forces exist, the buoyant force is assumed to act vertically upwards through the center of buoyancy and through the:			
	center of gravity	center of flotation	metacenter	metacentric height
20	In the presence of external forces, the center of buoyancy of an inclined vessel is vertically aligned with the:			
	Center of gravity	Metacenter	Center of flotation	Keel
21	Increasing free surface has the effect of raising the:			
	uncorrected KG	metacenter	virtual height of the center of gravity	metacentric height
22	Initial stability of a vessel may be improved by:			
	Any of the above	Removing loose water	Adding weight low in the vessel	Closing crossover valves between partly filled double bottom tanks
23	It is a type of joint formed when an edge of one plate is laid over the edge of the plate to which it is riveted is called:			
	Strap Joint	Thread Joint	Lap joint	Grip joint
24	It is the strake of side plating nearest to the deck.			
	Seam strake	Side strake	Sheer strake	Butt strake

25	Mathematically speaking a couple requires:			
	any two forces acting on a body at right angles of each other	two equal forces acting on a body in opposite directions and along parallel lines.	two equal forces acting on a body at right angles in opposite directions.	none of the answer
26	Progressive flooding may be indicated by:			
	a continual worsening of list or trim	ballast control alarms	excessive draft	excessive list or trim
27	Reserve buoyancy is the:			
	unoccupied space below the waterline	difference between buoyancy in salt and fresh waters	excess of the buoyant force over gravitational force	volume of intact space above the waterline
28	The average of the observed drafts is known as:			
	mean draft	mean of the calculated drafts	true mean draft	draft at the center of flotation
29	The distance between B and M.			
	Metacentric Radius	Metacentric height	Metacenter	Righting Arm
30	The immersed body of the ship's forward of the parallel middle body is called:			
	Entrance	Run	Flare	Rake
31	The measurement is made by comparing height of deck at the center of the vessel to height of deck at the side of the vessel called:			
	Capstan	Ceiling	camber	cells
32	The result of large GM is the vessel being:			
	stiff	tender	subjected to a long roll	good with transverse stability

33	The values of the height of the metacenter (KM) at any draft may be taken from the:			
	Hydrostatic Properties Table	Building plans of the ships	Trim Tables	Stability letter
34	The weld used to attached stiffeners to a plate are known as:			
	place welds	seam welds	butt welds	fillet welds
35	Vertical moments are obtained by multiplying a vessel's weight and its:			
	LCB	VCG or KG	LCG	TCG
36	What is the ability of a vessel to return to her initial position after being forcibly inclined?			
	Metacentric stability	Righting lever	Stability	Righting moment
37	What term generally used to designate one of the transverse ribs that make up the skeleton of a ship?			
	Frame	Keel	Shell plating	Strakes
38	When a ship sags, what kind of stresses are set up on deck?			
	Sheering	Compressive	Tensile	Bending
39	When displacement increases, the free surface corrections for slacks tanks:			
	Increase	Are directly proportional	Decrease	Remain unchanged
40	When liquid is free to move transversely in a tank, the effect is called:			
	negative GM	free density	free communication	free surface
41	Which does not affect the value of the free surface correction?			
	Specific gravity of the liquid in the tank	Length of the tank	Registered tonnage	Width of the tank

42	Which of the following will improve stability?			
	Closing watertight doors	Consume fuel oil from a full tank	Loading additional cargo on deck	Pumping the bilges
43	Which technique could be used to give a more comfortable roll to a stiff ship?			
	Ballast the peak tanks	Concentrate weights in the upper tween deck wings	Add weight near the centerline of the lower hold	Move weights lower in the ship
44	Your vessel damaged and listing to port. There is a short rolling period around the angle of list. The port side freeboard is reduced to 1 foot. There is no trim. Which action should you take first?			
	fill an empty centerline double bottom tank	pump out a marine portable tank located on the port side amidships	press up a slack double bottom tank on the port side	jettison the anchors and anchor cables
45	A limit on the range of residual dynamic stability which can be considered effective is defined by which of the following?			
	angle of maximum difference between ordinates of the righting arm curve and heeling arm curve	whichever is the least among the selection	40 degrees	the angle of flooding
46	A metal pin secured to the rudder, which is hooked downward into the gudgeons on the stern post, and affords an axis of oscillation as the rudder is moved from side to side for steering.			
	Skeg	Boss	Propeller Aperture	Pintle
47	A partially full tank causes a virtual rise in the height of the:			
	Center of gravity	Center of buoyancy	center of floatation	Metacenter
48	A ship's forward draft is 22'-04" and its after draft is 24'-00". The draft amidships is 23'-04". This indicates a concentration of weight:			
	at the bow	in the lower holds	amidships	at the ends

49	A symbol indicating the height of vessel's center of gravity.			
	KG	GM	KM	GZ
50	A term called ceiling of a vessel.			
	fashion plate	Deckhead	deadlight	crow's nest
51	A vessel aground may have negative GM since the:			
	decrease in KM is equal to the loss of draft	virtual rise of G is directly proportional to the remaining draft	displacement lost acts at the point where the ship is aground	lost buoyancy method is used to calculate KM, and KB is reduced
52	A vessel has how many degrees of freedom?			
	three	five	four	six
53	A vessel is "listed" due to the following conditions?			
	inclined due to an off-center weight	have negative GM	trimmed by the head	inclined due to effect of the wind
54	A vessel should normally behave as if all of its weight is acting downward through the center of gravity and all of its support is acting upward through the:			
	keel	center of buoyancy	tipping center	amidships section
55	A vessel which is subjected to "sagging":			
	is supported on a wave whose crest is amidship	has its main deck in tensile stress	has its bottom plating under tensile stress	is said to be under a form of transverse bending
56	A vessel's KG is determined by:			
	dividing the total longitudinal moment summation by displacement	dividing the total vertical moment summation by displacement	multiplying the MTI by the longitudinal moments	subtracting LCF from LCB

57	A virtual rise in the center of gravity of a vessel may be caused by:			
	filling a partially filled tank	transferring pipe from the setback area to the pipe rack	using fuel from a pressed fuel tank	emptying a partially filled tank
58	Among the choices, which does not affect the correction of the free surface?:			
	Tank width	Tank length	Specific gravity of the fluid	Tonnage
59	After jacking down your liftboat you have an unexpected list. You find that the only cause of this list must be a flooded leg. Raising the flooded leg further would adversely affect the boats stability by:			
	raising the KG and increasing the draft which may put you in an unsafe operating condition	increasing GM and causing a fast roll	increasing the righting arm on the high side	causing the vessel to yaw when underway
60	An upright vessel has negative GM. GM becomes positive at the angle of loll because the:			
	free surface effects are reduced due to pocketing	KG is reduced as the vessel seeks the angle of loll	effective beam is increased causing BM to increase	underwater volume of the hull is increased
61	Bilge keels are fitted on ships to:			
	assists in drydock alignment	improve the vessel's stability	protect from slamming against piers	reduce the rolling of the vessel
62	Corresponding approximately to the angle of deck edge immersion.			
	Angle of maximum stability	Angle of maximum list	Angle of dangerous roll	Angle of dangerous list
63	Dividing the total vertical moment summations by displacement is to determine the _____ of a vessel.			
	KM	LCF	BM	KG
64	For a vessel to be in neutral equilibrium, her GM must be:			
	100	50%	Zero	0.3

65	Heave is the motion of a vessel along the:			
	longitudinal axis	transverse axis	vertical axis	centerline axis
66	If you are going to transfer weights from upper tween deck to the lower hold, what will happen?			
	Metacentric height will decrease	the rolling period will increase	make the vessel more tender	make the vessel more stiffer
67	The abbreviation 'GM' is used to represent the:			
	height of the metacenter	righting arm	righting moment	metacentric height
68	The center of underwater volume of a floating vessel is the:			
	uncorrected center of gravity	center of buoyancy	center of floatation	center of gravity corrected for free surface effect
69	The effect of free surface on initial stability depend upon the volume of displacement of the vessel and the:			
	location of the tank in the vessel	weight of the free liquids	volume of liquid in the tank	dimensions of the surface of the free liquids
70	The joint formed when two steel plates are placed end-to-end is called a:			
	Butt	Bevel	Seam	Bond
71	The timber deck cargo should be secured throughout its length, the maximum spacing of the lashings should be determined by the:			
	length of the timber load	size of the timber load	weight of the timber load	maximum height of the timber
72	The vertical plate of the vessel's girder is called:			
	Knee	Flanged	Bracke	Web
73	To sink due to loss of reserve buoyancy.			
	Founder	Beaching	Overloading	Unseaworthy

74	What will be the result of removing deck-stowed containers?			
	KG will increase	Reserve buoyancy will decrease	Metacentric height will increase	KB will increase
75	When initial stability applies, the height of the center of gravity plus the metacentric height equals the:			
	Corrected height of the center of gravity	Righting arm	Free surface moments	Height of the metacenter
76	Which of the following weld faults can only be detected by a method that examines the internal structure of a weld:			
	undercut	lack of reinforcement	overlap	lack of penetration
77	With no environmental forces acting on the vessel, the center of gravity of an inclined vessel is vertically aligned with the:			
	metacenter	longitudinal centerline	center of flotation	original vertical centerline
78	A continual worsening of the list or trim of any floating vessel indicates:			
	negative GM	progressive flooding	structure failure	an immediate need to counterflood
79	A large GM will result in the vessel being:			
	stiff	tender	subjected to a long roll	good with transverse stability
80	A motion of a vessel in waves about the vessel's longitudinal axis.			
	pitching	yawing	heaving	Rolling
81	A vessel continually lists to one side and has a normal rolling period. Which statement is TRUE?			
	The vessel has negative Gm	The center of gravity is on the center line.	The list can be corrected by reducing KM.	The vessel has asymmetrical weight distribution.
82	A vessel trimmed down by the bow has:			
	a greater draft forward than aft	zero trim	a low mean draft	a greater draft aft than forward

83	A vessel freely floating in the water will behave as if all of its weight is acting downward through a point called:			
	center of gravity	center of buoyancy	center of flotation	metacenter
84	A direction at right angles to the centerline of the ship or an item of structure in this position is called a/an:			
	Transverse	Longitudinal	Vertical	Amidships
85	A horizontal line drawn along the top edge of the keel from midship is:			
	Amidship	Camber	Rise of floor	Baseline
86	A measurement of the tendency of a ship to return to the upright if inclined by external force:			
	Statical Stability	Heel	Trim	List
87	A metal cover for a glass porthole.			
	fashion plate	cover plate	deadlight	port cover
88	A method of solving for damage stability where water which enters the vessel is considered an added weight.			
	Added weight method	Deballasting	Damage control	Downflooding angle
89	A negative metacentric height:			
	will always cause a vessel to capsize	should always be immediately corrected	always results from off- center weights	All of the above are correct
90	A quick and rapid motion of a vessel in a seaway indicates:			
	a large GM	a high center of gravity	a low center of gravity	a small GZ

91	A ship has a quick hard roll. The ship's stability is:			
	Tender	Large GM	Small righting moment	Top heavy
92	A slow and easy motion of a vessel in a seaway is an indication of a:			
	small GM	low center of gravity	stiff vessel	large GZ
93	A stress called compression is being placed on the sheer strakes if the vessel is:			
	Sagging	hogging	under shearing force	inclined
94	A synchronous rolling motion will occur when the encounter wave period is nearly equal to ship's:			
	natural pitching period	natural rolling period	rolling period	any of the above
95	A tank which carries liquid is dangerous to the stability of a ship when it is:			
	Completely full	Low in the ship	Completely empty	Slack
96	A tank which is NOT completely full or empty is called:			
	pressed	slack	inertial	elemental
97	A vertical shift of weight to a position above the vessel's center of gravity will:			
	increase reserve buoyancy	decrease the righting moments	decrease KG	increase KM
98	A vessel center of gravity is lowered when the:			
	reserve buoyancy increases	freeboard is increased	tanks are ballasted	trim increased
99	A vessel has what type of stability, when the center of gravity is lower than the metacentric height?			
	stable	neutral stability	unstable	negative

100	A vessel having continuous closely spaced transverse strength members is:			
	longitudinally framed	cellular framed	web framed	transversely framed
101	A vessel is inclined at an angle of loll. In the absence of external forces, the righting arm (GZ) is:			
	positive	negative	zero	vertical
102	A vessel is subjected to 'hogging' when it:			
	has its main deck under compressive stress	has its bottom plating under tensile stress	is supported on a wave whose crests are at the bow and stern	is supported on a wave whose crest is amidships
103	A vessel list and trims from its:			
	Center of floatation	Center of gravity	Center of buoyancy	Center of underwater volume
104	A vessel which is subjected to "hogging":			
	has its main deck under compressive stress	has its main deck plating under tensile stress	has its bottom plate under tensile stress	has its bottom plating under ductile stress
105	A vessel with a large GM will:			
	have a small amplitude of roll in heavy weather	tend to ship water on deck in heavy weather	be subject to severe racking stresses	be less likely to have cargo shift
106	A vessel with a small GM will:			
	be more subject to synchronous rolling	have a short rolling period	provide an uncomfortable ride for personnel	have a smaller amplitude of roll in heavy weather
107	A vessel with large metacentric height will:			
	be less likely to have cargo shift	tend to shift water on deck in heavy weather	be subject to severe racking stress	have small amplitude of roll in heavy weather

108	A virtual rise in the center of gravity of a vessel may be caused by:			
	filling a partially filled tank	using an on board crane to lift a freely swinging heavy object	emptying a partially filled tank	transferring pipe from the setback area to
109	Aboard a vessel, dividing the sum of the transverse moments by the total weight yields the vessel's:			
	transverse position of the center of gravity	vertical moments	inclining moments	righting moments
110	Aboard a vessel, multiplying a load's weight by the distance of the load's center of gravity from the centerline results in the load's:			
	TCG	transverse moment	righting moment	transverse free surface moment
111	Addition of weight to a vessel will always:			
	reduce reserve buoyancy	increase righting moments	increase GM	All of the above
112	After transferring a weight forward on a vessel, the draft at the center of flotation will:			
	change, depending on the location of the LCG	increase	decrease	remain constant
113	Although KG for a vessel in lightweight is relatively high, the vessel is stiff because:			
	KM is small	KM is high	BL is small	KB is large
114	An inclined vessel with a very short rolling period about a constant angle of list is likely to have:			
	an off-center TCG	an LCG greater than level vessel LCB	a negative GM	excessive free surfaces
115	As the displacement of a vessel increases, the detrimental effect of free surface:			
	increases	decreases	remains the same	may increase or decrease depending on the fineness of the vessel's form

116	At all angles of inclination, the metacenter is:			
	vertically above the center of buoyancy	vertically above the center of gravity	at the intersection of the upright vertical centerline and the line of action of the buoyant force	at the geometric center of the underwater volume
117	Buoyancy is a measure of the ship's:			
	ability to float	deadweight	freeboard	midships strength
118	Concerning the use of a stabilogauge, which of the following cannot be found?			
	deadweight	trim	mean draft	displacement
119	Deballasting a double bottom has what affect on KG?			
	KG is increased	KG is decreased	KG is not affected	KG increases at light drafts and decreases at deep drafts
120	Difference between the starboard and port drafts due to wind or seas is termed:			
	List	Flotation	Trim	Heel
121	Dividing the total longitudinal moments summations by displacement will determine the:			
	Vessel's LCB	Vessel's LCF	Vessel's LBP	Vessel's LCG
122	Draft is the vertical distance between the keel and the _____, for an upright vessel.			
	Freeboard	plimsoll mark	waterline	amidship section
123	For an upright vessel, draft is the vertical distance between the keel and the:			
	waterline	freeboard deck	Plimsoll mark	amidships section

124	During cargo operations, your vessel develops a list due to the center of gravity rising above the transverse metacenter. To correct the list, you should:			
	shift weight to the high side	shift weight to the centerline	add weight in the lower holds or double bottoms	remove weight from the lower holds or double bottoms
125	During counterflooding, to correct a severe list or trim aggravated by off-center load, what will be your course of action if a vessel suddenly takes a list or trim to the opposite side?			
	Deballast from the low side	Continue counterflooding in the same direction	Continue counterflooding, but in the opposite direction	Immediately stop counterflooding
126	Fighting a rig fire in the ballast pumproom with hoses would adversely affect the stability of the rig most by:			
	increasing the permeability of the pumproom	reduction of drill water from the storage tanks	a list caused by water filling the compartment	a reduced KG caused by water filling the compartment
127	Forces within a vessel have caused a difference between the starboard and port drafts. This difference is called:			
	List	heel	trim	flotation
128	GM cannot be used as an indicator of stability at all angles of inclination because:			
	M is not fixed at large angles	there is no M at large angles	G is not fixed at large angles	there is no G at large angles
129	How do you describe a vessel with a large metacentric height and a low center of gravity?			
	Tender Ship	Unstable	Stable	Stiff Ship
130	If a vessel is sagging, which kind of stress is placed on the sheer strake?			
	Compression	Racking	Tension	Thrust
131	If the cause of severe list or trim is off-center ballast, counterflooding into empty tanks will:			
	increase the righting moment	increase the righting arm	increase list or trim	decrease list or trim

132	If the metacentric height is small, a vessel will:			
	be tender	have a quick and rapid motion	be stiff	have large angles of roll
133	If the ship is hogging, the pillars will be under which of the following stresses?			
	Sheer	Tensile	Compression	Twisting
134	If the ship takes a sudden severe list or trim from an unknown cause, the first action is to:			
	determine the cause before taking countermeasures	assume the shift is due to off center loading	counterflood on the side opposite the list or trim	assume the cause is environmental forces
135	If the vertical center of gravity (VCG) of a ship rises, the righting arm (GZ) for the various angles of inclination will:			
	decrease	increase	remain unchanged	be changed by the amount of $GG' \times \cos$ of the angle
136	If your vessel has a list to port due to negative GM and off-center weight, the first corrective measure you should take is to:			
	move port-side main-deck cargo to the starboard side	fill the starboard double-bottom	pump water from the port double-bottom to the starboard double-bottom	pump water from the port double-bottom over the side
137	In order to determine the weight capacity of a deck in a cargo hold, you must refer to the:			
	General arrangement	Deadweight scale	Deck capacity plan	Cubic capacity tables
138	In small angle stability theory, the metacenter is located at the intersection of the inclined vertical centerline and a vertical line through:			
	G	F	B	K
139	In the absence of external forces, the center of buoyancy of an inclined vessel is vertically aligned directly below the:			
	center of gravity	center of the waterplane area	center of floatation	amidship station

140	In the absence of external forces, the center of gravity of a floating vessel is located directly in line with the:			
	Metacenter	amidships	center of flotation	geometric center of the displaced volume
141	In the ship's superstructure, the vertical divisions arrange are known as:			
	Bulkheads	Decks	Floors	Peaks
142	Initial stability is indicated by:			
	GM	KM	Deck load	Maximum allowed
143	Initial stability refers to stability:			
	at small angles of inclination	when loaded with minimum deck load	when at transit draft	when GZ is zero
144	It is a design modification of an anchor chain which prevents kinking.			
	kenter link	detachable link	stud link	connecting link
145	It is a disk with horizontal line through its center equivalent to the summer load line.			
	maximum allowable draft mark	tonnage mark	deadrise mark	plimsoll mark
146	It is the measure of the internal capacity of the ship.			
	Gross tonnage	Net tonnage	Tonnage measurement	Compensated tonnage
147	It means a log which is "slab-cut" or ripped lengthwise so that the resulting thick pieces have two opposing, parallel flat sides.			
	Poles	Pulpwood	Cant	Lumber
148	Reducing the free surfaces within a vessel, reduces the:			
	metacentric height	natural roll period	waterplane area	uncorrected height of the center of gravity

149	Repairing damage to the hull at or above the waterline reduces the threat of:			
	Continued progressive flooding	Free surface effects	Wind overturning moments	Capsizing the vessel
150	Strong single post for taking mooring ropes.			
	mast	cleats	Bollard	bitts
151	The beam of a vessel refers to the:			
	Molded depth of the vessel	Width of the vessel	Depth between decks	Internal cubic capacity
152	The difference between the height of the metacenter and the metacentric height is termed:			
	height of the center of buoyancy	height of the center of gravity	righting arm	metacentric radius
153	The draft is called _____ when the vessel is complete with water in boilers but without crew, bunkers, fresh water, stores and other load.			
	light draft	initial draft	minimum draft	maximum draft
154	The effects of free surface on initial stability depend upon the dimensions of the surface of the free liquids and the:			
	Volume and displacement of the vessel	Volume of liquid in the tank	Location of the tank in the vessel	Height of the center of gravity of the vessel
155	The garboard strake is the strake next to the:			
	keel	keelson	sheer	deadrise
156	The important stability parameter "KG" is defined as the:			
	height of the center of gravity above the keel	metacentric height	height of the metacenter above the keel	height of the center of buoyancy above the keel

157	The location of the center of gravity and the center of buoyancy are the principal factors in determining the ship's:			
	center of flotation	center of forces	dynamical stability	stability
158	The original equilibrium position is stable when:			
	Metacentric radius is positive	Metacentric height is positive	KG exceeds maximum allowable limits	Free surface are excessive
159	Jettisoning weight from topside:			
	returns the vessel to an even keel	reduces free surface effect	lowers the center of gravity	raises the center of buoyancy
160	Loadline markings are set by what authority?			
	Classification societies	International Maritime Organization	Flag states	Port states
161	Molded depth is measured from the:			
	Top of the garboard strake	Outside of the cell	Top of the center vertical keel	Inside of the shell
162	Panting frames are located in what part of the vessel?			
	fore and after peak tanks	forward double bottoms tanks	after double bottom tanks	centerline tanks or tankers
163	The outward curvature of the ship's hull above the waterline is called:			
	stem	flare	camber	deadrise
164	The strength of a deck will be increased by adding:			
	camber	deck beam brackets	hatch beams	sheer

165	The upward slope of a ship's bottom from the keel to the bilge is known as:			
	camber	slope	deadrise	keel height
166	The vertical measurement from keel to waterline is called the:			
	free board	depth	draft	height
167	The vessel stability can be adversely affected by:			
	increasing the free surface effect	decreasing ballast on loaded passage	ballasting the fore peak tank	ballasting the aft peak tank
168	This provides a method for estimating the additional draft or determining the extra load that can be taken on board when a vessel is being loaded in water of less than that of salt water.			
	Deadweight scale	Tonnage scale	Freeboard scale	Displacement scale
169	To "shore up" the main deck for the stowage of deck cargo means to:			
	package the cargo in wooden crates so it will not damage the deck	weld pad eyes on deck in proper position to secure the cargo	strengthen the main deck by placing pillars underneath it in the tween-decks	distribute the weight of the cargo by placing the fore-and-aft planks on the main deck
170	What are the horizontal lines marked 21 inches to the right of the disc that are 9 inches in length and 1 inch in breadth, all marked at right angle to a vertical line that is about 21 inches from the center of the disc?			
	Load lines	Load waterline	summer load line	load line
171	What is the measure of the turning effect of the force about a point?			
	Moment of force	Couple	Resultant of force	Force
172	When a vessel is floating upright, the distance from the keel to the meta center is the:			
	KM	height of the baseline	righting arm	GM

173	What is the principal danger of a tank half filled with liquid on board a vessel?			
	Loss of stability from free surface effects	Corrosion from shifting liquids	Rupturing the bulkheads from shifting liquids	Holing of the tank bottom from the weight of shifting liquid
174	What is the ship's broad profile which gives all data relating to the capacity of the cargo spaces, tanks, bunkers, storerooms and location of the center of gravity of each?			
	Body plan	Stowage plan	Capacity plan	Expansion plan
175	What will be observed of a ship that navigated from open sea with a high water density when it enters a river with a low water density?			
	Draft will increase	Draft will decrease	Ship will list	Ship will heel
176	When a weight is shifted down, which of the following takes place?			
	The height of CG increases	The height of CB increases	None of the choices	Metacentric height increases
177	When the height of the metacenter is the same as the height of the center of gravity, the metacentric height is equal to:			
	the height of the metacenter	the height of the center of gravity	the same as half the height of the metacenter	zero
178	Which among the theory proves that the weight of a floating vessel is equal to the weight of the displaced water?			
	Newton's theory	Archimedes principle	Law of gravity	Law of water level
179	Which is part of the ground tackle?			
	Charlie noble	Devil's claw	Gooseneck	Rat's tail
180	Which of the following decreases ship's stability because it reduces initial stability and is usually off center?			
	topside icing	scattered container deck cargo	uneven log deck load	heavy shipping seas on deck

181	Which of the listed is used as an indicator of initial stability?			
	Righting moment	Metacentric radius	Righting arm	Metacentric height
182	Which statement concerning the lashing of containers with solid bar or wire rope lashing is TRUE?			
	Stack heights maybe increased when using a solid bar lashing	Stack weights should be less when using a solid bar lashing as compared to a wire lashing	Stack heights should be reduced when using a solid bar lashing	Solid bars should be used for lashing the first tie only, with wire lashings on the higher tier(s)
183	Who is responsible for maintaining the vessel's structural strength?			
	The Management company	Master	The Flag state Administration	The Classification Society
184	You must shore up a bulkhead due to flooding. The bulkhead approximate a rectangle. The center of pressure of the shores on the bulkhead should be located:			
	approximately one third of the way up the bulkhead	approximate halfway up the bulkhead	at the bottom of the bulkhead	evenly over the surface of the bulkhead
185	Your vessel is damaged and is listing to port. The rolling period is short. There is sufficient freeboard so deck edge submersion is not a problem. What corrective action should be taken first in regards to the vessel's stability?			
	jettison outside weights to reduced KG and KB	press up any slack double bottom tanks to add weight low down	flood any empty double bottom tanks to add weight low down	shift any off center weights from port to starboard