

OIC-NW: COMPETENCE 1

Plan and Conduct a Passage and Determine Position

1	You are proceeding up a channel at night. It is marked by a range which bears 185°T. You steady up on a compass course of 180° with the range in line dead ahead. This indicates that you:			
	must come right to get on the range	course is in error	compass has some easterly error	are being affected by a southerly current
2	The shoreline shown on nautical charts of areas affected by large tidal fluctuations is usually the line of mean:			
	lower low water	low water	tide level	high water
3	Stormy weather is usually associated with regions of:			
	high barometric pressure	low barometric pressure	steady barometric pressure	changing barometric pressure
4	Information on search and rescue procedures and special, local communications used in Mexican waters will be found in the:			
	World Port Index	International Code of Signals (Pub 102)	Sailing Directions (Planning Guides)	International Aeronautical and Maritime Search and Rescue Manual
5	Pressure gradient is a measure of:			
	a high-pressure area	pressure difference over horizontal distance	pressure difference over time	vertical pressure variation
6	Denebola is found in what constellation?			
	Hydrus	Leo	Centaurus	Aquila

7	As the temperature of the air reaches the dew point:			
	rain must develop	fog may form	it begins to snow	water freezes
8	After the passage of a cold front the visibility:			
	does not change	improves rapidly	improves only slightly	becomes poor
9	A sextant having an index error that is "off the arc" has a:			
	positive correction	dip error	negative correction	semidiameter error
10	A double star is a star that:			
	has a declination equal to twice that of the Sun	comprises two stars that appear close together	is twice as bright as a single star	suddenly becomes much brighter and then fades
11	90 degrees subtracted from Ho is:			
	sextant altitude	co-latitude	LHA	zenith distance
12	The greater the pressure difference between a high and a low pressure center, the:			
	dryer the air mass will be	cooler the temperature will be	greater the force of the wind will be	warmer the temperature will be
13	Normal pool elevation is the height in feet of the section of river above a dam. This height is measured from:			
	low steel on the Huey P. Long Bridge	mean sea level	the local water table	the minimum dam control level
14	If you count 20 seconds between seeing lightning and hearing the thunder, how far is the storm away from you?			
	2 miles	4 miles	6 miles	8 miles

15	A hurricane moving northeast out of the Gulf passes west of your position. You could expect all of the following EXCEPT:			
	higher than normal swells	high winds	winds veering from south, through west, to northwest	gradual pressure gradient
16	The Sailing Directions (Planning Guide) contain information on all of the following EXCEPT:			
	coastal features	ocean basin environment	ocean routes	military operating areas
17	The winter solstice is the point where the Sun is at:			
	maximum declination north	maximum declination south	0° declination going to northerly declinations	0° declination going to southerly declinations
18	The temperature at which the air is saturated with water vapor and below which condensation of water vapor will occur is referred to as the:			
	precipitation point	vapor point	dew point	absolute humidity
19	Where do you find the semidiameter correction to be used to correct sextant observations of the stars?			
	It is included in the altitude corrections inside the front cover of the Nautical Almanac	Table 25 in Bowditch contains the correction	A correction of -0.5' should be applied to all star sights	No semidiameter correction is used
20	Why are low altitude sun sights not generally used?			
	Errors due to unusual refraction may exist	Sextants may have large errors at small angles of elevation	Modern sight reduction tables are not complete for low altitudes below 5°	The glare on the horizon causes irradiation errors
21	Inferior conjunction is possible for:			
	Mars	Venus	Saturn	Jupiter

22	Charts showing the coast of Mexico are produced by the United States:			
	National Geospatial-Intelligence Agency	Coast Guard	Naval Observatory	National Ocean Service
23	For navigational purposes, each great circle on the Earth has a length of:			
	3,600 miles	5,400 miles	12,500 miles	21,600 miles
24	A sign of thunderstorm development is a cumulus cloud:			
	darkening, growing in size and forming an anvil top	that shows extensive vertical development	creating cold downdrafts that are felt on the ground	All of the above
25	A cold front moving in from the northwest can produce:			
	thunderstorms, hail, and then rapid clearing	increasing cloud cover lasting for several days	lengthy wet weather	low ceilings with thick cirrus clouds
26	The FIRST indications a mariner will have of the approach of a warm front will be:			
	large cumulonimbus clouds building up	low dark clouds with intermittent rain	fog caused by the warm air passing over the cooler water	high clouds gradually followed by lower thicker clouds
27	When adjusting a magnetic compass for error, a deviation table should be made:			
	before correcting for any deviation	after correcting for variation	after adjusting the fore- and-aft and athwartships permanent magnets	before the quadrantal correctors are placed on the compass
28	When using an echo sounder in deep water, it is NOT unusual to:			
	receive a strong return at about 200 fathoms (366 meters) during the day, and one nearer the	receive a first return near the surface during the day, and a strong return at about 200 fathoms	receive false echoes at a constant depth day and night	have to recalibrate every couple of days due to inaccurate readings

29	The dew point is reached when the:			
	temperature of the air equals the temperature of the seawater	atmospheric pressure is 14.7 lbs. per square inch	relative humidity reaches 50%	temperature of the air equals the temperature of the seawater
30	Between the equator and the 46th parallel of latitude, there are 3099 meridional parts. How many degrees of equatorial longitude does 3099 meridional parts represent?			
	35°52'45"	51°39'00"	74°21'11"	82°36'12"
31	During the month of October the Sun's declination is:			
	north and increasing	north and decreasing	south and increasing	south and decreasing
32	In shallow water, waves that are too steep to be stable, causing the crests to move forward faster than the rest of the wave, are called:			
	rollers	breakers	white caps	surfers
33	The difference between the DR position and a fix, both of which have the same time, is caused by:			
	variation	deviation	current	leeway
34	The GHA of the first point of Aries is 315deg. and the GHA of a planet is 150deg.. What is the right ascension of the planet?			
	7 hours	11 hours	19 hours	23 hours
35	A line drawn through all points on a isomagnetic chart having the same amount of magnetic variation.			
	isotherms	agonic	isobaric	isogonic
36	All of the following can be found on a Pilot Chart EXCEPT information concerning the:			
	percentage of frequency of wave heights	percentage of poor visibility conditions	sea surface temperatures	amounts of precipitation

37	Complete information on weather broadcasts throughout the world is contained in:			
	Selected Worldwide Marine Weather Broadcasts	your local newspaper	the Notice to Mariners	the daily weather map
38	A chart with a scale of 1:45,000 is a:			
	harbor chart	coast chart	general chart	sailing chart
39	A tropical storm is building strength some distance from your vessel. Waves are coming from the east, with periods increasing from 5 seconds to 15 seconds. The swell is from the east. Where was the storm when these new swells were generated?			
	To the north of you	To the south of you	To the east of you	To the west of you
40	When the moon is new or full, which type of tides occur?			
	Neap	Spring	Diurnal	Apogean
41	Which list of clouds is in sequence, from highest to lowest in the sky?			
	Altostratus, cirrostratus, stratus	Cirrostratus, altostratus, stratus	Stratus, cirrostratus, altostratus	Altostratus, stratus, cirrostratus
42	Which statement is TRUE concerning the current of the Gulf Stream?			
	It reaches its daily maximum speed a few hours before the transit of the Moon	It is slower at the time of neap tides than at spring tides	When the Moon is at its maximum declination the stream is narrower than when the Moon is on the	Variations in the trade winds affect the current
43	Your vessel goes aground in soft mud. You would have the best chance of refloating it on the next tide if it grounded at:			
	low water neap	low water spring	high water neap	high water spring

44	Capella is found in what constellation?			
	Gemini	Auriga	Libra	Crab
45	Error may be introduced into a magnetic compass by:			
	making a structural change to the vessel	a short circuit near the compass	belt buckles	All of the above
46	Magnetic compass deviation:			
	varies depending upon the bearing used	is the angular difference between magnetic north and compass north	is published on the compass rose on most nautical charts	is the angular difference between geographic and magnetic meridians
47	The climate of the northern Gulf coast:			
	is humid and subtropical throughout the year	has an east coast marine type of climate	is a warm marine type of climate	varies from warm to subtropical
48	The reaction of a gyrocompass to an applied force is known as:			
	precession	earth rate	gyroscopic inertia	gravity effect
49	The velocity of a rotary tidal current will be decreased when the Moon is:			
	at apogee	new	full	All of the above
50	The diurnal variation of pressure is most noticeable:			
	above the polar circles	in a low pressure area	during periods of low temperatures	in the doldrums
51	The fog most commonly encountered at sea is called:			
	conduction fog	radiation fog	frontal fog	advection fog

52	A vertex of the navigational triangle is NOT located at the:			
	elevated pole	celestial body	Zenith	coaltitude
53	As a licensed Merchant Marine Officer you are expected to:			
	obtain a weather forecast before setting out from port	listen to weather forecasts on the radio while enroute	understand all broadcast weather warning information	All of the above
54	Cumulus clouds that have undergone vertical development and have become cumulonimbus in form, indicate:			
	clearing weather	that a warm front has passed	probable thunderstorm activity	an approaching hurricane or typhoon
55	In the horizon system of coordinates what is equivalent to the poles on the Earth?			
	Celestial poles	Zenith, nadir	Ecliptic poles	Nodes
56	In which source could you find the number of a chart for a certain geographic area?			
	Chart No. 1	Catalog of Charts	American Practical Navigator	U.S. Coast Guard Light List
57	The constellation that contains Polaris is:			
	Orion	Cassiopeia	Ursa Minor	Corona Borealis
58	The LMT of sunrise on the standard meridian is 0552. Your longitude is 99deg. 15'E. What is your ZT of sunrise?			
	0512	0529	0552	0615
59	Tropical cyclones are classified by form and intensity. Which system does not have closed isobars?			
	Hurricane	Tropical disturbance	Tropical depression	Cyclone

60	What benefit is a weather bulletin to a mariner?			
	It provides a legal reason to cancel a projected voyage.	It allows the mariner to make long term weather forecasts.	It is of little benefit since the weather changes frequently and rapidly.	It gives the mariner time to prepare for weather changes.
61	What is NOT a side of the navigational triangle used in sight reduction?			
	Altitude	Zenith distance	Colatitude	Polar distance
62	What is the most important source of information to be used in correcting charts and keeping them up to date?			
	Fleet Guides	Notice to Mariners	Sailing Directions	Pilot Charts
63	When navigating using GPS, what is an indicator of the geometry of the satellites that your receiver is locked onto?			
	Horizontal Dilution of Precision	Selective Availability	Doppler Shifting	Precision Coding
64	Which general weather conditions should you expect to find in a low pressure system?			
	Fair weather	Precipitation and cloudiness	Scattered clouds at high elevations	Gradual clearing and cooler temperatures
65	You are on a vessel at 0400 ZT on 3 July, and the ZD for your position is -8. What is the GMT?			
	1200, 3 July	2000, 3 July	1200, 2 July	2000, 2 July
66	Your chart indicates that there is an isolated rock and names the rock using vertical letters. This indicates the:			
	rock is visible at low water springs only	rock is a hazard to deep draft vessels only	rock is dry at high water	exact position of the rock is doubtful
67	At the magnetic equator there is no induced magnetism in the vertical soft iron because:			
	the lines of force cross the equator on a 0°-180° alignment	the quadrantal error is 0°	there is no vertical component of the Earth's magnetic field	the intercardinal headings have less than 1° error

68	In the Northern hemisphere which semicircle of a hurricane is the navigable semicircle?			
	Left	Right	Front	Back
69	Right ascension is primarily used by the navigator for:			
	calculating amplitudes	calculating great circle sailings by the Ageton method	entering the Air Navigation Tables (Selected Stars) Pub 249	plotting on star finders
70	The autumnal equinox is the point where the Sun is at:			
	maximum declination north	maximum declination south	0° declination going to northerly declinations	0° declination going to southerly declinations
71	The error in a sextant altitude caused by refraction is greatest when the celestial body is:			
	high in the sky	near the horizon	rising	at or near transit
72	The point where the vertical rise or fall of tide has stopped is referred to as:			
	slack water	the rip tide	the stand of the tide	the reverse of the tide
73	What is the equivalent of 5deg. 54' in time units?			
	20 min. 16 sec.	23 min. 36 sec.	25 min. 54 sec.	30 min. 27 sec.
74	When drawing a weather map and an isobar crosses a front, the isobar is drawn:			
	perpendicular to the front	kinked and pointing away from the low	kinked and pointing towards the low	kinked and pointing towards the high for a warm front only
75	Which current is responsible for the movement of icebergs into the North Atlantic shipping lanes?			
	Iceland Current	Baltic Current	Labrador Current	Baffin Current

76	Magnets in the binnacles of magnetic compasses are used to reduce the effect of:			
	Deviation	variation	local attraction	All of the above
77	On a working copy of a weather map, a stationary front is represented by which color line?			
	Red	Blue	Alternating red and blue	Purple
78	Spring tides occur:			
	at the start of spring, when the Sun is nearly over the equator	only when the Sun and Moon are on the same side of the Earth and nearly in line	when the Sun and Moon are at approximately 90° to each other as seen from the Earth	when the Sun, Moon, and Earth are nearly in line, in any order
79	The magnitude of three stars is indicated. Which star is the brightest?			
	Antares + 1.2	Altair + 0.9	Vega + 0.1	Cannot be determined; magnitude indicates size not brightness
80	A slow rise in the barometric pressure forecasts:			
	rainy weather for the next 48 hours	high seas	improving weather conditions	deteriorating weather conditions
81	According to Buys Ballot's law, when an observer in the Northern Hemisphere experiences a northeast wind the center of low pressure is located to the:			
	northeast	west-southwest	northwest	south-southeast
82	A great circle will intersect the equator at how many degrees of longitude apart?			
	0deg.	45deg.	90deg.	180deg.
83	A nautical mile is a distance of approximately how much greater than or less than a statute mile?			
	1/4 less	1/7 less	1/4 greater	1/7 greater

84	A revised print of a chart is made:			
	after every major hydrographic survey of the area covered by the chart	when there are numerous corrections to be made or the corrections are extensive	when a low-stock situation occurs and minor corrections are made	every two years to update the magnetic variation information
85	A warm air mass is characterized by:			
	stability	instability	gusty winds	good visibility
86	In the celestial equator system of coordinates what is the equivalent to the meridians of the Earth system of coordinates?			
	Horizon	Hour circles	Vertical circles	Parallel of declination
87	The distance between the surface of the water and the tidal datum is the:			
	height of tide	charted depth	actual water depth	range of tide
88	The intensity of a hurricane as it reaches higher latitudes and cooler waters:			
	Increases	remains the same	decreases	None of the above
89	The numeral in the center of a wind rose circle on a pilot chart indicates the:			
	total number of observations	average wind force on the Beaufort scale	average wind force in knots	percentage of calms
90	The purpose of the "set" hand on an aneroid barometer is to:			
	adjust the barometer	indicate any change in the reading of the barometer	provide a correction for height above sea level	provide a correction for temperature changes
91	The summer solstice is the point where the Sun is at:			
	maximum declination north	maximum declination south	0° declination going to northerly declinations	0° declination going to southerly declinations

92	Variation is not constant; it is different with every change in:			
	speed	vessel heading	geographical location	cargo
93	What is the definition of height of tide?			
	The vertical distance from the tidal datum to the level of the water at any time	The vertical difference between the heights of low and high water	The vertical difference between a datum plane and the ocean bottom	The vertical distance from the surface of the water to the ocean floor
94	Which condition will occur after a cold front passes?			
	Temperature rises	Stratus clouds form	Pressure decreases	Humidity decreases
95	You are on course 355deg. T and take a relative bearing of a lighthouse of 275deg.. What is the true bearing of the lighthouse?			
	080deg.	085deg.	280deg.	270deg.
96	Which of these sextant errors is nonadjustable?			
	Prismatic error	Graduation error	Centering error	All of the above
97	A celestial body will cross the prime vertical circle when the latitude is numerically:			
	greater than the declination and both are of the same name	less than the declination and both are of the same name	greater than the declination and both are of contrary name	less than the declination and both are of contrary name
98	A mean sun is used as the reference for solar time for three reasons. Which reason is NOT a cause for use of a mean sun?			
	The motion of the apparent sun is along the ecliptic	Measurement of time is along the celestial equator	The speed of the Earth's revolution is not constant	There are variations in the Earth's rotational speed

99	At 0000 you fix your position and change course to 090°T. At 0030 you again fix your position and it is 0.5 mile east of your DR. Which statement is TRUE?			
	The current is easterly	The drift is 0.5 knot	You should alter course to the right to regain the track line	The current is perpendicular to your track line
100	Gyrocompass repeaters reproduce the indications of the master gyrocompass. They are:			
	accurate only in the Polar regions	accurate electronic servomechanisms	hand operated	accurate only if the vessel is underway
101	In a microbarograph, the pen should be checked and the inkwell filled:			
	each time the chart is changed	once per month	once per week	daily
102	Monsoons are characterized by:			
	light, variable winds with little or no humidity	strong, gusty winds that blow from the same general direction all year	steady winds that reverse direction semiannually	strong, cyclonic winds that change direction to conform to the passage of an extreme low
103	The change in the length of day becomes greater as latitude increases because of the:			
	inclination of the diurnal circle to the equator	decreasing distance between the terrestrial meridians	increased obliquity of the celestial sphere	changing distance between the earth and the sun
104	The Humboldt Current flows in which direction?			
	North	South	East	West
105	The lunar day is:			
	longer than a solar day	shorter than a solar day	the same length as the solar day	longer than a solar day during the summer months and shorter in winter months

106	The length of the year with respect to the vernal equinox is the:			
	tropical year	sidereal year	anomalistic year	All of the above
107	Under ideal viewing conditions, the dimmest star that can be seen with the unaided eye is of what magnitude?			
	First	Third	Fourth	Sixth
108	A line on the Earth parallel to the equator is a:			
	gnomonic curve	small circle	meridian	great circle
109	Barometer readings in weather reports are given in terms of pressure at:			
	sea level	Washington, D.C.	the weather station	the broadcasting station
110	If a magnetic compass is not affected by any magnetic field other than the Earth's, which statement is TRUE?			
	Compass error and variation are equal	Compass north will be true north	Variation will equal deviation	There will be no compass error
111	In North America the majority of the weather systems move from:			
	north to south	south to north	east to west	west to east
112	The direction of prevailing winds in the Northern hemisphere is caused by the:			
	magnetic field at the North Pole	Gulf Stream	Earth's rotation	Arctic cold fronts
113	The spin axis of a gyroscope tends to remain fixed in space in the direction in which it is started. How does this gyroscope become north seeking so that it can be used as a compass?			
	By mechanically or electrically applying forces to precess the gyroscope	By starting the compass with the spin axis in a north/south position	By taking advantage of the property of gyroscopic inertia	The rotation of the Earth (Earth rate) automatically aligns the gyroscope with north, except for speed

114	What indicates that a tropical cyclone may be within 500 to 1,000 miles of your position?			
	A pumping of the barometer up and down a few millibars	A sudden wind shift from southwest to northwest followed by steadily increasing winds	The normal swell pattern becoming confused, with the length of the swell increasing	An overcast sky with steadily increasing rain from nimbostratus clouds
115	What kind of weather would you expect to accompany the passage of a tropical wave?			
	Heavy rain and cloudiness	Good weather	A tropical storm	Dense fog
116	When correcting the sextant altitude to apparent altitude you are correcting for inaccuracies in the reading and:			
	for inaccuracies in the reference level	the equivalent reading at the center of the body	the equivalent reading from the center of the Earth	the bending of the rays of light from the body
117	If it is impossible to avoid a hurricane in the Northern Hemisphere, the most favorable place to be when the storm passes is in:			
	the dangerous semicircle	the eye (center) of the storm	that half of the storm lying to the right of the storm's path	that half of the storm lying to the left of the storm's path
118	A dead reckoning (DR) plot:			
	must utilize magnetic courses	must take set and drift into account	should be replotted hourly	should be started each time the vessel's position is fixed
119	A generally circular low pressure area is called a(n):			
	cyclone	anticyclone	cold front	occluded front
120	A line connecting all possible positions of your vessel at any given time is a:			
	longitude line	latitude line	line of position	fix

121	A pilot chart does NOT contain information about:			
	average wind conditions	tidal currents	magnetic variation	average limits of field ice
122	A position on the Earth has a longitude of 74°10'E. Its celestial counterpart would have a:			
	GHA of 285°50'	SHA of 74°10'	SHA of 285°50'	LHA of 74°10'E
123	A steep barometric gradient indicates:			
	calms	light winds	strong winds	precipitation
124	A system of reservoirs and connecting tubes in a gyro compass is called a:			
	spider element	mercury ballistic	gyrotron	rotor
125	A vessel heading NNW is on a course of:			
	274.5°	292.0°	315.5°	337.5°
126	An alternating light:			
	shows a light with varying lengths of the lighted period	shows a light that changes color	marks an alternate lesser- used channel	is used as a replacement for another light
127	Anticyclones are usually characterized by:			
	dry, fair weather	high winds and cloudiness	gustiness and continuous precipitation	overcast skies
128	An empirical measure describing wind intensity based mainly on observed sea conditions.			
	Anemometer	Beaufort Scale	Wind Vane	Wind Speed
129	An instrument which maintains a continuous record of temperature changes is called a:			
	thermometer	barometer	thermograph	hygrograph

130	Clouds with the prefix "nimbo" in their name:			
	are sheet or layer clouds	have undergone great vertical development	are middle or high altitude clouds	are rain clouds
131	Discounting slip, if your vessel is turning RPM for 10 knots and making good a speed of 10 knots, the current could be:			
	with you at 10 knots	against you at 10 knots	slack	with you at 2 knots
132	Fog is formed when:			
	the moisture in the air is condensed into small droplets	air is cooled to its dew point	the base of a cloud is on the ground	All of the above
133	From those listed, which of the statement about the dip of a magnet is TRUE?			
	At the magnetic poles, the dip is least and the directive force is reduced	At the magnetic equator, the dip is maximum and the directive force the least	At the magnetic poles , the dip is least and the directive force is the greatest	At the magnetic equator, the dip is zero and the directive force greatest
134	How is variation indicated on a small-scale nautical chart?			
	Magnetic compass table	Magnetic meridians	Isogonic lines	Variation is not indicated on small-scale nautical charts.
135	If the magnetic heading is greater than the compass heading, the deviation is:			
	east	west	north	south
136	In high latitudes, celestial observations can be made over a horizon covered with pack ice by bringing the sun tangent to the ice and:			
	adding 30° of arc to the sight	using a dip correction based on the height of eye above the ice	doubling the semidiameter correction	using a dip correction from table 22 in Bowditch Vol. II
137	In low latitudes, the low(s) of the diurnal variation of pressure occur(s) at:			
	noon	noon and midnight	1000 and 2200	0400 and 1600

138	In the horizon system of coordinates what is equivalent to the declination of the equator system?			
	Nadir	Azimuth angle	Altitude	Zenith distance
139	In the Northern Hemisphere, the largest waves or swells created by a typhoon or hurricane will be located:			
	in the southeast quadrant of the storm	directly behind the storm center	forward and to the right of its course	behind and to the left of its course
140	In the relatively calm area near the hurricane center, the seas are:			
	moderate but easily navigated	calm	mountainous and confused	mountainous but fairly regular as far as direction is concerned
141	Lines drawn through points on the Earth having the same atmospheric pressure are known as:			
	isothermal	millibars	isobars	seismics
142	Mean high water is the reference plane used for:			
	all vertical measurements	heights above water of land features such as lights	soundings on the East and West Coasts	water depths on the East Coast only
143	On a Mercator chart, 1 nautical mile is equal to:			
	1 minute of longitude	1 degree of longitude	1 minute of latitude	1 degree of latitude
144	On November 1st the zone time is 1700 EST (ZD +5) in LONG 75deg. W. What is the corresponding zone time and date in LONG 135deg. E?			
	0700, November 2nd	0700, November 1st	2200, November 1st	2200, October 31st
145	Opposition occurs when:			
	the Sun, Earth, and Moon are at right angles	the Sun's declination is 0° and is moving south	an inferior planet is at the maximum angle to the line of sight to the Sun	the Earth is between a planet and the Sun

146	Radiation fog:			
	always forms over water	is formed by a temperature inversion	is thinnest at the surface	dissipates during the evening
147	Sidereal time is used by navigators when:			
	used with the equation of time	used in the form of LHA Aries	calculating the time of moonrise	determining local apparent time
148	The "horse latitudes" are regions of:			
	brisk prevailing winds	light airs and calms	abundant blue sea grass vegetation	None of the above
149	The angle measured eastward from the vernal equinox along the celestial equator often expressed in time units is the:			
	Greenwich sidereal time	right ascension	local sidereal time	sidereal hour angle
150	The appearance of nimbostratus clouds in the immediate vicinity of a ship at sea would be accompanied by which of the following conditions?			
	Rain and poor visibility	Dropping barometric pressure and backing wind in the Northern Hemisphere	High winds and rising sea	Severe thunderstorms
151	The belt of light and variable winds between the westerly wind belt and the northeast trade winds is called the:			
	subtropical high pressure belt	intertropical convergence zone	doldrum belt	polar frontal zone
152	The Daily Memorandum contains information on:			
	active weather disturbances such as hurricanes or tropical storms	the latest navigational warnings	scheduled vessel arrivals and departures for a 24-hour period	water levels at river ports where run-off affects tidal heights

153	The date is the same all over the world at:			
	0000 GMT	1200 GMT	0000 LMT for an observer at 90°E longitude	no time
154	The drift and set of tidal, river, and ocean currents refer to the:			
	position and area of the current	speed and direction toward which the current flows	type and characteristic of the current's flow	None of the above
155	The edge of a hurricane has overtaken your vessel in the Gulf of Mexico, and the northwest wind of a few hours ago has shifted to the west. This is an indication that you are located in the:			
	navigable semicircle	dangerous semicircle	low pressure area	eye of the storm
156	The height of tide is the:			
	difference between the depth of the water and the area's tidal datum	depth of water at a specific time due to tidal effect	difference between the depth of the water and the high water tidal level	difference between the depth of the water at high tide and the depth of the water at low tide
157	The Milky Way is an example of a:			
	cluster	galaxy	nova	nebula
158	The most accurate method of determining gyrocompass error while underway is by:			
	comparing the gyro azimuth of a celestial body with the computed azimuth of the body	comparing the gyro heading with the magnetic compass heading	determining from the chart the course made good between celestial fixes	It cannot be determined accurately at sea due to drift of unknown currents.
159	The National Geospatial-Intelligence Agency (formerly the National Imagery and Mapping Agency) would produce a chart of the coast of:			
	Alaska	Canada	Puerto Rico	Hawaii

160	The navigational triangle uses parts of two systems of coordinates, one of which is the celestial equator system, the other system is the:			
	terrestrial system	horizon system	astronomical system	ecliptic system
161	The part of a sextant mounted directly over the pivot of the index arm is the:			
	index mirror	horizon glass	micrometer drum	telescope
162	The prime vertical is the reference point from which the angle of which type of observation is measured?			
	Sextant angle	Azimuth	Amplitude	Local apparent noon
163	The period at high or low tide during which there is no change in the height of the water is called the:			
	range of the tide	plane of the tide	stand of the tide	reversing of the tide
164	The permanent magnetism of a vessel may change in strength due to:			
	the nature of the cargo being carried	changes in heading	major structural repair	All of the above
165	The pressure gradient between the horse latitudes and doldrums runs:			
	east to west	north to south	northeast to southwest	northwest to southeast
166	The region of high pressure extending around the Earth at about 35°N latitude is called the:			
	prevailing westerlies	horse latitudes	troposphere	doldrums
167	The small circle of the celestial sphere parallel to the celestial equator, and transcribed by the daily motion of the body, is called the:			
	hour circle of the body	parallel of declination	vertical circle of the body	parallel of altitude
168	The standard time meridian for description +12 is:			
	172.5°E	180.0°	172.5°W	165.0°W

169	The type of current which will have the greatest effect on the course made good for your vessel is:			
	one flowing in the same direction as your course steered	one flowing in the opposite direction as your course steered	one that flows at nearly right angles to your course steered	a rotary current in which the direction of current flow constantly changes
170	The vertex of a great circle track is in LONG 109deg. E. An eastbound vessel would cross the equator in LONG:			
	161°W	161°E	19°E	19°W
171	To find a magnetic compass course from a true course you must apply:			
	deviation	deviation and variation	variation	magnetic anomalies (local disturbances)
172	The wind direction around a low pressure area in the Northern Hemisphere is:			
	clockwise and inward	clockwise and outward	counterclockwise and inward	counterclockwise and outward
173	Weather patterns in the Gulf Coast area of the United States are:			
	those of a transition zone between tropical and a temperate area	those of a tropical region	extremely hot in summer	tropical over Florida and subtropical over the rest of the Gulf Coast area
174	What current flows southward along the west coast of the United States and causes extensive fog in that area?			
	Davidson Current	North Pacific Current	Alaska Current	California Current
175	What does not contribute to the commercial GPS receiver position error?			
	Satellite clock	Ship's speed	Atmospheric/ionospheric propagation	Satellites' orbits
176	What is a characteristic of a rhumb line?			
	It is the shortest distance between two points on the Earth.	It plots as a straight line on a Lambert conformal chart.	It cuts each meridian at the same angle.	The course angle constantly changes to form the loxodromic curve.

177	What is the length of a nautical mile?			
	1,800 meters	2,000 yards	6,076 feet	5,280 feet
178	What is true about a front?			
	A front is a boundary between two air masses.	There are abrupt temperature differences on opposite sides of a front.	The pressure tendencies are different on opposite sides of a front.	All of the above
179	What publication has information on the climate, distances, navigation regulations, outstanding landmarks, channels and anchorages of Long Island Sound?			
	Light List	Coast Pilot	Sailing Directions	Pilot Chart
180	What will act to dissipate fog?			
	Upwelling cold water	Advection of warm air over a colder surface	Rain that is warmer than air	Downslope motion of an air mass along a coast
181	When a low pressure area is approaching, the weather generally:			
	improves	worsens	remains the same	is unpredictable
182	What would you adjust in an attempt to eliminate index error of a sextant?			
	The telescope	The tangent screw	calibration	The horizon glass
183	When taking an amplitude, the Sun's center should be observed on the visible horizon when:			
	in high latitudes	the Sun is near or at a solstice	the declination is of a different name from the latitude	the Sun's declination is at or near 0°
184	When within 300 miles of a named tropical storm or hurricane, it is standard practice to send weather reports every:			
	8 hours	6 hours	3 hours	1 hour

185	Where would you obtain data on currents for areas of the world not covered by the U.S. National Ocean Service?			
	In the Coast Pilot	In the Nautical Almanac	In the List of Lights	In the Sailing Directions
186	Which compensates for errors introduced when the vessel heels over?			
	The soft iron spheres on the arms of the binnacle	Magnets placed in trays inside the binnacle	A single vertical magnet beneath the compass	The Flinders bar
187	Which is a characteristic of the weather preceding an approaching warm front?			
	Gusty winds	Steadily falling barometric pressure	Decreasing relative humidity	Clearing skies
188	Which of the following is NOT a form of precipitation?			
	rain	frost	sleet	snow
189	Which publication should you check for complete information on Puget Sound weather conditions?			
	Sailing Directions	Light List	Coast Pilot	Chart of the area
190	Which statement concerning GPS is TRUE?			
	It cannot be used in all parts of the world.	There are 12 functioning GPS satellites at present.	It may be suspended without warning.	Two position lines are used to give a 2D fix.
191	Which statement about gyrocompass error is TRUE?			
	The amount of the error and the sign will generally be the same on all headings.	The sign (E or W) of the error will change with different headings of the ship.	Any error will remain constant unless the compass is stopped and restarted.	Any error shown by a gyro repeater will be the same as the error of the master compass.
192	Which type of cloud formation should be of immediate concern to small craft operators?			
	cirrus	altostratus	nimbostratus	cumulonimbus

193	Which type of GPS receiver has at least four channels to process information from several satellites simultaneously?			
	Sequential	Continuous	Multiplex	None of the above
194	While on watch, you notice that the air temperature is dropping and is approaching the dew point. Which type of weather should be forecasted?			
	Hail	Heavy rain	Sleet	Fog
195	You are in LONG 144deg. E. The date is 6 February, and the zone time is 0800. The Greenwich date and time are:			
	2200, 5 February	2300, 5 February	1700, 6 February	1800, 6 February
196	With respect to failure warnings and status indications, GPS receivers should provide, at a minimum:			
	a warning of loss of position	a cross-track error alarm	an indication of a change in satellite configuration	an alarm if engine speed is suddenly reduced
197	You take a bearing of 086deg. of a lighthouse. What bearing of another object would give the best fix?			
	000deg.	066deg.	112deg.	271deg.
198	You plot a fix using three lines of position and find they intersect in a triangle. The actual position of the vessel:			
	is outside of the triangle	may be anywhere in the triangle	may be inside or outside of the triangle	is the geometric center of the triangle