EARTH AND GEOGRAPHIC SCIENCES DEPARTMENT

Oceai	ceanography 226 final exam		Dr. John F. Looney, Jr.	
NAM	E:			
1.	Pack ice is frozen salt w	ater.		
	a.	TRUE	b. FALSE	
2.	The IIP is the northern P	acific.		
	a.	TRUE	b. FALSE	
3.	Pack ice forms in quiet v	vater.		
	a.	TRUE	b. FALSE	
4.	The cold of Laborador cu Atlantic Ocean.	urrent is responsible for icel	pergs in the South	
	a.	TRUE	b. FALSE	
5.	The west wind drift is fo	und in the Antarctic Ocean.		
	a.	TRUE	b. FALSE	
6.	The North Atlantic drift	is cold and it flows northwa	ard.	
	a.	TRUE	b. FALSE	
7.	The Alaskan current is co	old and it flows northward.		
	a	TRUE	b. FALSE	
8.	If I were drifting in the C	Canaries current I would go	south.	
	a.	TRUE	b. FALSE	
9.	Most fishing banks are	found in cold ocean currents	S.	
	a	TRUE	b. FALSE	
10). The gulf stream flows n	orthward and it is warm.		
	a	. TRUE	b. FALSE	
1	1. The Kuroshio is the wa	rm Japanese current.		
	a	. TRUE	b. FALSE	

12. Horse latitudes are areas of calms and verticle air.

a. TRUE

b. FALSE

13. The doldrums are found in calm areas with horizontal wind flow.

a. TRUE

b. FALSE

14. You can tell the name of a wind if you know where it came from.

a. TRUE

b. FALSE

15. Winds move along a thermo-pressure gradient from low pressure zones to high pressure zones.

a. TRUE

b. FALSE

- 16. We realize that temperature, pressure, and salinity are important considerations in understanding ocean water dynamics. Which is the most true statement:
 - a. pressure decrease/temperature increase
 - b. temperature increase/oxygen decrease
 - c. temperature increase/pressure increase
 - d. pressure increase/temperature decrease
 - e. both b and c
- 17. The temperature range of sea water is best described as being:
 - a. 29-90 degrees F
 - b. 10-140 degrees F
 - c. 29-85 degrees F
 - d. both a and c
- 18. Because of the viscosity of sea water we can state:
 - a. warm water flows esier than cold
 - b. warm water sinks
 - c. warm water is found at great depth
 - d. none of these is true
- 19. Viscosity is also important because it is related to:
 - a. rate of sinking
 - b. rate of reproduction
 - c. rate of mixing
 - d. relative to shape and medium
 - e. all but b
- **20.** If you were able to scuba dive to 4366 ft., how many atmospheres of pressure would be upon you?
 - a. 11 ATM
 - b. ATM or 176.4 psi
 - c. ATM of 101.5.670 mos
 - d. None of these

21	The	atnongant in fluores was a tides in
21.	The	strongest influence upon tides is:
	a.	sun
	b.	moon
	C.	wind stars

- 22. You can expect the highest spring tide when sun, moon and earth is in.
 - a. quadrature

d. none of these

- b. conjunction
- c. syzygy
- d. both a and c
- 23. The estuary is best defined as:
 - a. semi enclosed
 - b. coastal
 - c. fresh/salt water
 - d. directly connected to the sea
 - e. all of them
- 24. Common life of the estuary attached to rocks is
 - a. marsh grass
 - b. ribbed mussel
 - c. fresh/salt water
 - d. directly connected to the sea
 - e. all of them
- 25. The end product of a photosynthetic reaction is:
 - a. sugar
 - b. oxygen
 - c. sunlight
 - d. energy none of these

IDENTIFY ASPECTS OF WAVE NOMENCLATURE (26 – 29)

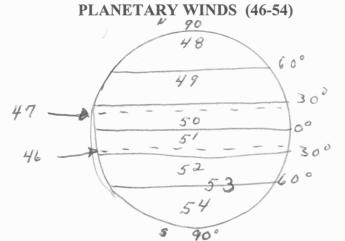


- a. trough
- b. crest
- c. length
- d. height
- e. amplitude
- 30. Waves break on a beach because:
 - a. bottom drag
 - b. slow moving trough
 - c. shallow water
 - d. bent cusp
 - e. all of these

	ranslation:
a. gravity	
b. sea c. swell	
d. all of these	
6 111	
a. bore	wave found in large bays or semi enclosed areas is:
b. seiche	
c. tsunami	
d. long shore	
e. edge wave	
33. Tsunami: tidal as underto	ow:
a. rip	
b. rap	
c. rip/rap	
d. bore	
e. none of these	
34. Open ocean salinity is ex	pressed as:
a. 3.5%	
b. 35 ppt	
c. 35% d. 350 ^{00ppm}	
e. all but c	
e. an out c	
	salts usual standard is the chlorine ion concentration of%
a. 77%	
b. 10%	
c. 55%	
d. 3%	
MATCH THE FOLLOWIN	NG TRACE ELEMENTS ARE ARE IN LARGER
MARINE CONCENTRATI	ION
36. Iodine	a. crab/lobster blood
37. Nickel	b. sea weed – kelp
38. Lead	c. clams/mollusks
39. Cobalt	d. variety of organisms
40. Copper	
41. The major salt in the sea	is
a. sodium chloride	
b. magnesium chloride	
c. calcium carbonate	
d. calcium chloride	

- **42.** Oxygen % varies with _____ in ocean surface water.
 - a. temperature
 - b. pressure
 - c. salinity
 - d. a and b only
- **43.** Temperature: increase as _____: decrease.
 - a. oxygen
 - b. pressure
 - c. salinity
 - d. a and b only
- **44.** The rate of sinking is a function of both the density of the medium and the density of the body.
 - a. TRUE

b. FALSE



- a. calm
- b. easterly
- c. westerly
- d. Tropic of Capricorn
- e. Tropic of cancer
- PRESSURES ARE REFERRED TO IN (55-60)
- 55. 0 degrees latitude
- 56. 89 degrees north
- 57. 60 degrees south
- 58. 90 degrees south
- 59. 30 degrees north
- 60. 60. degrees north

- a. high
- b. low
- c. can't tell
- WINDS ARE REFERRED TO IN (61-66)
- 61. Polar Northeasterly
- 62. South Westerly
- 63. Northeasterly
- 64. Southeasterly
- 65. North Westerly
- 66. Polar Southwesterly

- a. relatively warm wind
- b. relatively cod wind
- c. can't tell

67.	The types of tides in Boston Harbor are	<u> </u>
	a. daily	
	b. semi-daily	
	c. mixed	
	d. diurnal	
	e. both a and b	
68.	High: Low as	_ Neap.
	a. sprung	
	b. Spring	
	c. Syzygy	
	d. Quadrature	
	e. both a and b	
69.	The distance and direction that a wave t	ravels is referred to as
	a. fetch	-
	b. tsunami	
	c. capillary	
	d. translation	
	e. both a and b	
70.	The temperature range of sea water is be a. 29 - 90 degrees F b. 10 - 140 degrees F c. 29 - 85 degrees F d. both a and c	est described as being:
71.	Almost 50% of the earth is covered by l	and.
	a. TRUE	b. FALSE
72.	The Canaries Current, Kuroshiro, Gulf the North Atlantic Gyre.	Stream, and North Atlantic Drift make
	a. TRUE	b. FALSE
73	Stenohaline marine organisms usually	
15.	a. live in open ocean	<u> </u>
	b. live in estuaries	
	c. have narrow toleration of salinity	
	d. both a and c	
	e. none of the above	
74	Euryhaline marine organisms usually	
, -T.	a. live in open ocean	
	b. live in estuaries	
	c. have narrow toleration of salinity	
	d. both a and c	
	e. none of the above	

a. fish b. animals c. algae d. plants e. darkness	ght as Aphotic Zone:	
76. The greatest range of	of temperature variat	ion is found in the Neretic Province.
	a. TRUE	b. FALSE
77. The greatest range	of temperature variat	ion is found in the Neretic Province.
	a. TRUE	b. FALSE
78. The greatest variati	on in pressure are fo	und in the Neretic Province.
	a. TRUE	b. FALSE
MATCH (79-83)		
 79. Rock Weed 80. Chlorophyte 81. Kelp 82. Spartina 83. Diatom 84. A basic food chain a. producer b. consumer c. autotrophy d. heterotroph e. both a and c 	has	a. redb. greenc. brownd. none of these
MATCH (85-91)		
85. carbon86. sulfur87. silicon88. oxygen89. chlorine90. bromium91. nitrogen		a. primaryb. secondaryc. tertiary
92. The type of animal a. burrower b. swimmer c. floater d. algae form	l most likely to live i	n a sandy beach is a (n)

93.	Mos	stly all muddy beaches have	_	
a. strong wave action				
	b.	lack of air and water movement		
c. aerobic surface decomposition of bacteria				
d. quiet water				
	e.	all except a		
94.		ommon toxic substance on all muddy b	eacl	nes is
		H2S		
		gonyaloux tamarensis red tide		
		dinoflagellates		
		e colil		
		ZE THE PROPER ABBREVIATION DWING WATER TYPES.	TC	DESCRIBE THE
0.5	NI	al. Adlandia and an an		CW
		th Atlantic water on top		SW UW
		epest glacial water/melt s dense than bottom water	о. с.	
		s dense/deep than intermediate water		
		cumpolar water		BW
100	a. b. c.	composition is the common source of _ carbon hydrogen sulfur phosphate both c and d		
101	a. b. c. d.	ne simplest food web would link algae tuna plankton swordfish none of these		
MA	ATC:	Н (102-107)		
102	. ph	osphorous	a.	bedrock
	-	rbon	b.	bacteria
104	. su	lfate	c.	plant combustion
105	5. water d. photosynthesis			
106	6. nitrogen e. saltation			
107	'. en	ergy		
108	. Fj	ord estuaries are found in		·
	a.			
	b.	<u>-</u>		
		Delaware Bay		
	d.			
	e.	Back Bay		

109. A quick and a	dequate definition of an es	tuary is that it is a drowned river mo
	a. TRUE	b. FALSE
110. There is almo estuary.	st ten times more plant pro	ductivity in a wheat field than an
	a. TRUE	b. FALSE
111. The most con herbaceous	nmon vegetational form in	the estuary is usually small and
	a. TRUE	b. FALSE
112. A typical fre	sh water form of vegetatio	n in the estuary is the reed.
	a. TRUE	b. FALSE
113. In examining	a marsh, color is usually a	good indication of grass specie.
	a. TRUE	b. FALSE
114. Eel grass is a	ctually a weed and not a gr	ass.
	a. TRUE	b. FALSE
115. The Scarlet P	impernel is a weather forec	caster.
	a. TRUE	b. FALSE
MATCH (116-122)	
116. salt wedge 117. ideal/theoreti 118. horizontal bo 119. more salt/in - 120. verticle boun 121. caused by typ 122. salt on one si	undary - fresh/out dary layer	a. type Cb. fjordc. type Bd. type De. type E
123. The end resu	t of marsh grass productio	n and decomposition is peat.
	a. TRUE	b. FALSE

124.	Responsibility for the destruction of many Penquin eggs rests with
	a. DDTb. PC
	c. Eskimo
	d. harp seals
	e. both c and d
	c. both c and d
125.	The highest quality of ocean water is classified as
	a. Class A
	b. Class B
	c. Class C
	d. none of these
126	Ice cap melt: Rise in sea level as glacial onset
120.	a. more ocean water
	b. lowered sea level
	c. greater continental shelf
	d. both b & c
	e. none of these
127.	All of the flowing gases dissolved in sea water a much higher concentration
	that those on land except
	a. CO2
	b. 02
	c. n2
128.	If you were able to scuba dive to 2633 ft., how many atmospheres of pressure
	would be upon you approximately
	a. ATM
	b. 176.4 psi
	c. 21 ATM
	d. none of these
129.	Breaker: Capillary as Translation:
	a. CB
	b. gravity
	c. sea
	d. swell
	e. all of these
130.	The type of wind driven waves found in large bays or semi enclosed areas is
	a. bore
	b. siche
	c. tsunami
	d. long shore

131.	a. rip b. rap c. rip/rap d. bore e. none of these	ndertow:	
132.	The largest icebergs	are found in southern hemisp	ohere oceans.
		a. TRUE	b. FALSE
133.	Icebergs are transpo	rted in warm ocean currents.	
		a. TRUE	b. FALSE
134.	Pack ice may cause	ice flows	
		a. TRUE	b. FALSE
135.	The international Icto July.	e Patrol is found in the south.	Atlantic from March
		a. TRUE	b. FALSE
136.	Pack ice originates a a. continental glac b. alpine glacier c. maritime glacier d. piedmont glacie e. none of these	r	·
137.	It is impossible to fi	ind icebergs in subtropical wa	ters.
		a. TRUE	b. FALSE
138.	Which of the follow a. Ross Ice Shelf b. Filcher Ice She c. East Greenland d. none of these		l with ice floe.
139.	Deep ocean currents	s are caused by wind.	
		a. TRUE	b. FALSE
140.	Deep ocean currents a. temperature b. salinity c. pressure d. all of these	s may be caused by	·

141. Non radioactive wathermal.	Non radioactive water pollution from nuclear power plants is most likely to be thermal.		
	a. TRUE	b. FALSE	
142. White caps usually	follow the wind.		
	a. TRUE	b. FALSE	
143. White caps indicat	e quiet water.		
	a. TRUE	b. FALSE	
a. seicheb. borec. taunamid. undertowe. rip	v lag is a (an)		
MATCH (146-150)			
146. Gulf Stream147. Alaskan148. Humboldt149. Guinea150. Falkland		a. North Atlanticb. South Atlanticc. North Pacificd. South Pacifice. none of the above	