

Geography 1 Pretest for Second Exam

1. A counterclockwise atmospheric circulation in the Northern Hemisphere is known as a/an _____.
a) anticyclone b) cyclone c) Coriolis effect d) pressure gradient e) troposphere
2. A monsoon is associated with high rainfall totals and is caused by _____.
a) gravitational forces b) volcanic gas c) a seasonal reversal of winds d) the Jet stream e) Coriolis effect
3. Trade winds are found in the zone _____.
a) spanning 25° N and S of the equator b) spanning 25° N and S of the Arctic Circle
c) spanning the longitudinal zone of the 0° meridian d) north of the monsoons
e) over all of the world's deserts
4. Cold winds pouring downhill because of gravity are called _____.
a) monsoons b) katabatic winds c) valley breezes d) trade winds e) cyclones
5. The one phenomenon most directly responsible for the seasonally moist climate of northern Australia is
a) tornadoes b) Jet stream c) monsoon d) Hadley cells e) convection
6. The "horse latitudes" are zones of minimal winds which are associated with the _____ pressure system.
a) subtropical high b) trades c) westerlies d) Polar easterlies e) intertropical convergence
7. The region in which the intertropical convergence can be found is _____.
a) near the North Pole b) the Equator c) the Southeastern United State d) northern Australia e) central Siberia
8. Sea breezes rarely penetrate more than _____ kilometers inland.
a) 0.3 b) 3 c) 30 d) 300 e) 3,000
9. The contact zone of warm tropical and cold Polar air is known as the
a) subtropical high b) Polar easterly c) Polar front d) monsoon e) intertropical convergence
10. _____ are map lines connecting points of equal atmospheric pressure.
a) Isobars b) Millibars c) Contours d) Isohyets e) Isotherms
11. The doldrums are most closely associated with _____.
a) Polar fronts b) STHs c) ITC d) Rossby waves e) VTR
12. _____ and _____ both occur at night.
a) Sea breezes, land breeze b) Land breezes, valley breezes c) Valley breezes, mountain breezes
d) Mountain breezes, land breezes e) Sea breezes, mountain breezes
13. Wind speed is determined mainly by _____.
a) latitude b) parallax c) pressure gradient force d) Coriolis effect e) roughness of the Earth's surface
14. Africa's main monsoon circulation is in the _____.
a) northern part b) west coast c) east coast d) south end e) central zone
15. The "snow-eater" wind of the Rocky Mountains is also called the _____.
a) chinook b) monsoon c) Santa Ana d) Rossby e) Hadley
16. In general, mountain breezes are strongest in winter because of _____.
a) cold air drainage b) Hadley cells c) chinooks d) adiabatic rate e) none of the above
17. The city of Chicago has a latitude (42°N) within which part of the global circulation?
a) trade winds b) subtropical high c) polar easterlies d) antitrade winds e) westerlies
18. Which of the following is the force that initially causes the wind to blow?
a) Coriolis b) geostrophic c) gravity d) pressure gradient e) friction

19. Coriolis effect exists because
 a) the Earth rotates b) gravity exists c) friction and pressure gradient are balanced
 d) geostrophic force and gravity are balanced e) the earth is an oblate spheroid
20. In which situation would Coriolis effect be GREATEST?
 a) low wind speeds, low latitude b) low wind speeds, high latitude
 c) high wind speeds, high latitude d) high wind speeds, low latitude
 e) Coriolis effect is a constant
21. In a cyclone in the Southern Hemisphere, winds spiral
 a) clockwise and inward b) clockwise and outward
 c) counterclockwise and inward d) counterclockwise and outward
 e) to the west
22. Which of the following is one of the causes of monsoons?
 a) jet streams strengthen in the summer
 b) polar easterlies bring contrasting air to the tropics
 c) oceans have large, seasonal temperature changes
 d) continents heat and cool differently than oceans
 e) all of the above
23. The chinook of the Rocky Mountains is the same thing as the foehn wind of the European Alps.
24. The major global wind and pressure systems
 a) stay in just about in the same place the entire year
 b) are controlled by earth/sun distance
 c) shift with the seasons
 d) are found mainly in the Northern Hemisphere
 e) seem to be independent of the jet stream
25. Winds are named for the direction toward which they flow.
26. The westerly winds generally occupy the zone 30° to 60° north and south latitude.
27. Mountain slopes generally heat faster than valley floors.
28. Monsoons bring general devastation to all regions they pass over, with few beneficial side effects.
29. The general circulation of the atmosphere is the main means of longitudinal and latitudinal heat transfer on the globe.
30. Subtropical high pressure systems are associated with storm formation.
31. Land breezes are usually weaker than sea breezes.
32. Any free-moving object will appear to be deflected to the left in the Southern Hemisphere.
33. The reason winds exist is _____.
 a) the unequal heating of the Earth b) Coriolis effect c) because air is a mixture of gases
 d) all of the above e) none of the above
34. Which of the following refers only to the horizontal motion of air?
 a) the general circulation b) subsidence
 c) updraft d) a balance of atmospheric forces e) wind
35. Which of the following is FALSE concerning Coriolis effect?
 a) It bends the wind to the left in the Southern Hemisphere
 b) The Northern Hemisphere's ocean currents are bent to the right
 c) It causes the upwelling of ocean water
 d) It is unimportant near the Equator
 e) It is the force that starts winds moving

36. A north wind
- is blowing to the north
 - is blowing to the south
 - is always a cold wind on Earth
 - means all of the above because of the lack of precise wind terms
 - is not described by any of the above
37. The Hawaiian Islands are in the _____ portion of the global circulation.
- subtropical high
 - intertropical convergence
 - hottest
 - trade wind
 - horse latitude
38. Air containing all of the water vapor it can hold is _____.
- adiabatic
 - saturated
 - dew point
 - unstable
 - convective
39. Water vapor can be described by all but one of the following.
- odorless
 - tasteless
 - energy-rich
 - light blue color
 - a small fraction of the atmosphere's volume
40. Winter precipitation exceeds summer precipitation in _____.
- the southern states
 - the Midwest
 - the Rocky Mountains
 - New England
 - California
41. Which is NOT among the main types of atmospheric lifting and precipitation?
- convective
 - orographic
 - frontal
 - advection
 - convergent
42. Downwind of large mountain ranges there is less precipitation; this drier zone is called the _____.
- windward side
 - rain shadow
 - advection side
 - adiabatic area
 - lifting condensation level
43. The critical temperature at which saturation is reached is called _____.
- absolute humidity
 - relative humidity
 - specific humidity
 - dew point
 - flash point
44. Which of the following promotes evaporation?
- warm water
 - warm air
 - moving air
 - all of the above
 - none of the above
45. The release of latent heat along with the water molecules from a wet surface is called _____.
- vapor pressure
 - evaporative cooling
 - specific humidity
 - evapotranspiration
 - none of the above
46. The altitude at which the dew point is reached is the _____.
- lifting condensation level
 - upslope fog
 - saturation level
 - isohyet
 - adiabat
47. Most of the wettest areas around the world are located in the _____.
- Tropics
 - continental interiors
 - midlatitude west coasts
 - Southern Hemisphere
 - none of the above
48. If air's capacity for holding water vapor is diminished then the relative humidity will _____.
- rise
 - fall
 - be unchanged
 - double
 - none of the above
49. The number of cloud droplets in a raindrop is on the order of _____.
- 1
 - 100
 - 1,000
 - 100,000
 - several million
50. Cold air moving over a warmer lake surface will result in a(n) _____ type of fog.
- advection
 - radiation
 - evaporation
 - convection
 - none of the above
51. Water is unique because no other substance occurs in
- solid form
 - liquid form
 - gaseous form
 - more than one form
 - all three forms in the atmosphere
52. Air forced to move over a mountain is most closely associated with which type of lifting?
- convection
 - hydrologic
 - convergence
 - orographic
 - stable
53. The capacity of air to hold water
- increases as temperature increases
 - increases as evaporation increases
 - decreases as evaporation decreases
 - decreases as temperature decreases
 - is not related to temperature

54. In the "Ice Crystal Formation" process, precipitation occurs because ice crystals
 a) melt as they fall b) form from raindrops c) grow at the expense of raindrops d) hook together e) have a low specific heat
55. When potential evapotranspiration exceeds precipitation, dry soil and brown vegetation might result.
56. If an air parcel is warmer than the air surrounding it, it will tend to rise.
57. The intertropical convergence migrates north and south of the equator on a seasonal basis.
58. Fog is a cloud which has a base at or near ground level.
59. Orographic precipitation stems from air flowing over high terrain, usually a mountain range along which air is forced upward.
60. Water vapor is visible to the human eye.
61. Fog represents a major form of precipitation for the Earth.
62. Relative humidity is a measure of how close air is to saturation.
63. Frontal activity is common in the tropical and high latitudes.
64. The least obvious and most important state of water in the atmosphere is _____.
 a) evaporation b) hail c) water vapor d) ice crystals e) rain
65. Relative humidity is "relative" to _____.
 a) moisture b) temperature c) vapor pressure d) saturation e) evaporation
66. In order for condensation to take place, _____.
 a) air has to be near sea level b) the relative humidity must be low
 c) plenty of "surfaces" need be present in the atmosphere d) the temperature must be above freezing
 e) all of the above must be true
67. Which of the following is SMALLEST?
 a) A small raindrop b) Raindrops in a convection storm c) A small piece of hail d) An average pellet of sleet
 e) A condensation nucleus
68. The Bergeron process is also known as the _____ process.
 a) acid rain formation b) ice crystal formation c) collision/coalescence d) hail e) glaze
69. Clouds form if air is _____.
 a) cooled to the dew point b) below freezing c) stable d) unstable e) windy
70. In classifying air masses, the cold, dry, ones are termed _____.
 a) maritime tropical b) continental tropical c) continental polar d) equatorial e) maritime polar
71. Tornadoes, although erratic in their pathways, are always characterized by _____ pressure.
 a) high b) low c) constantly variable d) adiabatic e) devaporized
72. Of the regions of the United States, which has the highest incidence of tornadoes?
 a) New England b) Hawaii c) West Coast d) Florida e) Central States
73. In order to be classified as a hurricane, a storm's wind velocity must exceed _____ mph.
 a) 200 b) 100 c) 74 d) 55 e) 30
74. The average directional movement of hurricanes is _____.
 a) east to west b) west to east c) north to south d) south to north e) southwest to northeast
75. The correct designation for a hurricane is as a/an _____.

- a) "enlarged tornado" b) "super thunderstorm complex" c) "tropical cyclone" d) "tropical occlusion" e) "extratropical anticyclone"
76. Thunderstorms accompany _____.
a) hurricanes b) tornadoes c) extratropical cyclones d) cold fronts e) all of the above
77. North America's greatest hurricane disaster took place at _____.
a) Los Angeles, CA b) Homestead, FL c) New Orleans, LA d) Bangor MA e) Savannah, GA
78. Of the list below, the coldest air is bound to be associated with a/an _____ air mass.
a) mP b) cP c) mT d) cT e) E
79. The most active phase of a thunderstorm is called the _____ phase.
a) active b) cumulonimbus c) severe d) rain e) mature
80. When one air mass does not override an adjacent one, their boundary is called a(n) _____ front.
a) warm b) cold c) stationary d) occluded e) dry
81. A tornado advances at a rate of speed of _____ kilometers per hour.
a) 1-2 b) 25-50 c) 100-120 d) 300-500 e) 1,000-1,500
82. The Sahara Desert would be the obvious zone of origin of a _____ air mass.
a) mP b) cT c) cP d) mT e) mM
83. On the average _____ fronts move the fastest.
a) warm b) cold c) stationary d) occluded e) all are the same
84. A distinguishing feature of thunderstorms is their _____.
a) cirrus cloud base b) anvil top c) scant vertical development d) ground fog e) none of the above
85. The month most likely for a hurricane to occur in the Northern Hemisphere is _____.
a) June b) January c) April d) September e) December
86. Which country is the most likely place on Earth for a tornado to occur?
a) Brazil b) U.S.A. c) Russia d) People's Republic of China e) Zaire
87. In an occluded front, the warm air sector is _____.
a) on the ground b) above the ground c) north of the cold sector d) south of the cold sector e) none of the above
88. Fronts are located
a) near air masses b) underneath air masses c) in the middle of air masses d) at the edges of air masses
e) with respect to motion, to the rear of air masses
89. Which front is shown on weather maps as a line with alternating semicircles and triangles on the same side of the line?
a) warm front b) cold front c) stationary front d) occluded front e) none of the above
90. In the Northern Hemisphere, an extratropical cyclone has winds that circulate
a) counterclockwise while diverging b) counterclockwise while converging
c) clockwise while diverging d) clockwise while converging e) from west to east
91. As a middle latitude cyclone goes through its life cycle, the warm sector
a) gets larger b) gets smaller c) travels from east to west d) subsides e) becomes warmer
92. The energy source of hurricanes is
a) thunderstorms b) cold fronts c) the jet stream d) warm seawater e) warm fronts
93. A typhoon is simply a regional name for a hurricane.
94. When air masses come together, warm air always rises over cold air.

95. The cumulus stage is the first stage in the formation of a thunderstorm.
96. The effects of El Nino/Southern Oscillation seem to be spread all over the globe.
97. Which of the following would be a likely diameter for a tornado?
 a) 10 meters b) 100 meters c) 1,000 meters d) 10,000 meters e) 100,000 meters
98. Which of the following could be said to be the "death" of an extratropical cyclone?
 a) The presence of strong temperature gradients across fronts b) Cyclogenesis
 c) Occlusion d) Expansion of the warm sector e) Occurrence of intense precipitation
99. Which type of front typically produces the fastest rise of air?
 a) Cold b) Warm c) Stationary d) Occluded e) They all produce approximately the same rise of air
100. Which type of front causes many hours of steady rain BEFORE that front passes a location?
 a) warm b) cold c) stationary d) all of the above e) none of the above
101. The Koppen system of climate classification is based on _____ data.
 a) solar radiation b) temperature and precipitation c) evapotranspiration d) sensible temperature indices e) cumulative humidity indices
102. The desire to simplify, organize, and generalize the vast array of climatic data into a comprehensible system that helps us understand the distribution of climates over Earth leads to _____.
 a) classification b) averaging c) weather forecasting d) compromise e) frustration
103. The climatic type for the desert areas is _____.
 a) Am b) BW c) Aw d) Dfa e) Cfa
104. Another designation for mediterranean climate is _____.
 a) dry subtropical b) midlatitude steppe c) upland savanna d) boreal forest e) midlatitude monsoon
105. Of the main Koppen climatic zones, _____ is the only one which does not occur in the Southern Hemisphere.
 a) A b) B c) C d) D e) E
106. The main reason for the occurrence of subtropical deserts around the world is:
 a) locations of the subtropical high pressure systems b) the westerly winds
 c) the intertropical convergence d) easterly winds e) position of the cold ocean currents
107. Which climate type is known for clear skies in the summertime?
 a) Af b) Cfa c) Dfa d) Csa e) Am
108. If deserts are arid, steppes are _____.
 a) subtropical b) semiarid c) temperature d) humid e) adiabatic
109. The world region most closely associated with D climates is:
 a) Central America b) Australia c) Canada d) Southern Africa e) Amazon basin
110. Because of lack of cloudiness and humidity, the BWh climates experience _____.
 a) great nocturnal radiation b) hailstorms c) salt encrustation d) dust devils e) none of the above
111. The Koppen system of climatic classification _____.
 a) was the first numerical system b) is widely used today c) uses vegetation boundaries as climatic boundaries
 d) all of the above e) none of the above
112. In the tropical rainforest, precipitation is mainly _____.
 a) frontal b) unreliable c) convective d) orographic e) gentle drizzle
113. The greatest one-day temperature range was recorded in _____.
 a) Denver b) Algeria c) Australia d) Antarctica e) India

114. Midlatitude deserts experience a _____ maximum in precipitation.
 a) winter b) summer c) low sun d) steppe e) none of the above
115. Most climatic classification schemes use _____ as the principal indicator of major climatic regions.
 a) temperature b) precipitation c) cloudiness d) daylength e) natural vegetation
116. Currently, with many climatic classification schemes which have been devised, scholars generally recognize that there are _____ basic climate types on Earth.
 a) two b) five c) ten d) twenty e) infinitely many
117. The Intertropical Convergence is most closely associated with which of the Koppen system's major climate types?
 a) A b) B c) C d) D e) E
118. Which of the following climates does NOT have a summer that is wetter than winter?
 a) monsoon b) humid subtropical c) subarctic d) mediterranean e) humid continental
119. Which of the following is NOT a characteristic of desert climates?
 a) Precipitation exceeds evapotranspiration. b) Precipitation is scarce. c) Precipitation is unreliable.
 d) Precipitation is intense when it comes. e) Cold ocean currents can cause advective cooling.
120. Which of the following is NOT a climate type found in South America?
 a) A b) B c) C d) D e) H
121. "Continentality" is a term most closely associated with which climatic type?
 a) A b) B c) C d) D e) H
122. A prime characteristic of Tropical wet climates is the low average annual temperature range.
123. It is possible for a desert to receive more precipitation than a humid region and still be arid.
124. In the Highland or H climates latitude is a less important factor than altitude and exposure as a climate control.
125. The difference between midlatitude and tropical deserts is the prevalence of lower winter temperatures in the midlatitude deserts.
126. The B climates are the only group in the Koppen system to be categorized by the lack of moisture.
127. The driest desert in the world is the Atacama in Chile.
128. Mediterranean climates receive almost all their precipitation from cyclonic storms.
129. The most widely used climatic classification system was devised by _____.
 a) the ancient Greeks b) Norwegians meteorologists of the 20th century c) the National Weather Service of the U.S.
 d) C. W. Thornthwaite e) Vladimir Koppen
130. The single most descriptive word that can be applied to Tropical Wet climates is
 a) "variability" b) "seasonality" c) "comfortable" d) "invigorating" e) "monotonous"
131. Which of the following are NOT common in the Tropical Rainforest climate?
 a) hoofed animals b) monkeys c) insects d) snakes e) birds
132. The B climates are dry most usually because of lack of _____.
 a) uplift in the air b) solar energy c) moisture in the air d) high altitude e) occurrence near the polar front
133. The Arizona monsoon _____.
 a) is not a true monsoon b) occurs in the early spring c) occurs when the day lengths are shortest
 d) is caused by the seasonal reversal of windflow e) is correctly described by all of the above
134. The _____ tropical rainforest soils is due to the climate.
 a) shallowness of b) infertility of c) brown color of d) plentiful, deep organic material in
 e) slow organic decomposition in

135. Whenever there is an active well, the water table will be drawn downward to a(n) _____.
 a) saturated zone b) cone of depression c) artesian well d) aquiclude e) bedrock layer
136. The layers of rock through which ground water cannot run or flow is a/an _____.
 a) phreatic b) aquifer c) aquiclude d) vadose e) all of the above
137. Which of the following is a significant part of the hydrologic cycle?
 a) advection b) runoff c) underground water flow d) evaporation e) all of the above
138. The water table is the top of the
 a) aquiclude b) waterless zone c) vadose zone d) piezometric surface e) saturated zone
139. Most freshwater lakes have but one surface outlet.
140. Virtually all underground water originates in the atmosphere.

ANSWER KEY

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|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| 1. b | 2. c | 3. a | 4. b | 69. a | 70. c | 71. b | 72. e |
| 5. c | 6. a | 7. b | 8. c | 73. c | 74. a | 75. c | 76. e |
| 9. c | 10. a | 11. c | 12. d | 77. b | 78. b | 79. e | 80. c |
| 13. c | 14. b | 15. a | 16. a | 81. b | 82. b | 83. b | 84. b |
| 17. e | 18. d | 19. a | 20. c | 85. d | 86. b | 87. b | 88. d |
| 21. a | 22. d | 23. True | 24. c | 89. d | 90. b | 91. b | 92. d |
| 25. False | 26. True | 27. True | 28. False | 93. True | 94. True | 95. True | 96. True |
| 29. True | 30. False | 31. True | 32. True | 97. b | 98. c | 99. a | 100. a |
| 33. a | 34. e | 35. e | 36. b | 101. b | 102. a | 103. b | 104. a |
| 37. d | 38. b | 39. d | 40. e | 105. d | 106. a | 107. d | 108. b |
| 41. d | 42. b | 43. d | 44. d | 109. c | 110. a | 111. d | 112. c |
| 45. b | 46. a | 47. a | 48. a | 113. b | 114. b | 115. e | 116. b |
| 49. e | 50. a | 51. e | 52. d | 117. a | 118. d | 119. a | 120. d |
| 53. a | 54. c | 55. True | 56. True | 121. d | 122. True | 123. True | 124. True |
| 57. True | 58. True | 59. True | 60. False | 125. True | 126. True | 127. True | 128. True |
| 61. False | 62. True | 63. False | 64. c | 129. e | 130. e | 131. a | 132. a |
| 65. d | 66. c | 67. e | 68. b | 133. a | 134. b | 135. b | 136. c |
| | | | | 137. e | 138. e | 139. True | 140. True |