

Name _____ Student ID: _____

MULTIPLE CHOICE. Choose the one alternative that best completes the statement or answers the question.

- 1) The _____ air mass forms off the Mexican High Plateau and impacts the southwestern part of the United States.
 - A) Arctic
 - B) Continental Polar
 - C) Maritime Polar
 - D) Continental Tropical
 - E) Maritime Tropical
- 2) The coldest air mass is:
 - A) arctic.
 - B) maritime polar.
 - C) continental polar.
 - D) continental tropical.
 - E) maritime tropical.
- 3) Mid-latitude cyclones in the Northern Hemisphere typically travel primarily in this direction:
 - A) east.
 - B) south.
 - C) north.
 - D) west.
- 4) An "air mass" is a large body of air that has similar horizontal characteristics of:
 - A) moisture and temperature.
 - B) moisture and winds.
 - C) temperature and density.
 - D) density and pollen.
 - E) none of the above
- 5) The forming of a Mid-latitude Cyclone is called:
 - A) Frontolysis.
 - B) Cyclogenesis.
 - C) Frontogenesis.
 - D) Generation.
 - E) Mid-latitude bombs.
- 6) The boundary between a warm air mass moving into a cold air mass is called a(n):
 - A) occluded front.
 - B) warm front.
 - C) cold front.
 - D) stationary front.
- 7) The earliest explanation for occluded fronts held that they formed when:
 - A) a cold front overtakes a warm front.
 - B) a circular region of low pressure at the junction of a cold front and a warm front changed shape.
 - C) two warm fronts meet while traveling in different directions.
 - D) cold air aloft sunk below warm air nearer the surface.
- 8) This type of front has a mass of warm air cut off from the surface:
 - A) stationary front.
 - B) occluded front.
 - C) warm front.
 - D) cold front.
- 9) Drylines are most common in this part of North America:
 - A) Southeast.
 - B) southern Great Plains.
 - C) Northeast.
 - D) Pacific Northwest.
- 10) The difference between "mid-latitude" cyclones and "tropical" cyclones is that:
 - A) tropical cyclones have only warm air while mid-latitude cyclones have three kinds of air.
 - B) mid-latitude cyclones can only form over land.
 - C) tropical cyclones can only form over water.
 - D) tropical cyclones occur only during the Northern Hemisphere summer.
- 11) cT air masses usually form:
 - A) in summer.
 - B) large quantities of rain-producing clouds.
 - C) in moderately cool areas.
 - D) in high-latitude areas.

- 12) In North America, cP masses are most likely to travel:
- A) west. B) east.
C) north. D) south.
- 13) This is the first type of cloud an observer will see when a warm front is approaching:
- A) altostratus.
B) cirrus.
C) low-level stratus.
D) nimbostratus.
- 14) As cP air moves south from Canada to near the Gulf of Mexico, the largest drop in temperature will occur at:
- A) Birmingham.
B) Minneapolis.
C) the U.S.-Canadian border.
D) Saint Louis.
- 15) _____ fronts usually have showery precipitation while _____ fronts usually have continuous precipitation.
- A) Occluded; cold
B) Cold; warm
C) Occluded; squall lines
D) Warm; cold
E) none of the above
- 16) An air mass that formed over northern Canada would most likely be designated:
- A) cT. B) mP.
C) mA. D) cP.
- 17) Air-mass source regions are least likely to be found here:
- A) middle latitudes.
B) polar regions.
C) low latitudes.
D) high latitudes.
- 18) A mid-latitude cyclone reaches its mature stage when:
- A) the storm system undergoes occlusion.
B) the storm moves over water.
C) the warm sector reaches its maximum strength.
D) the storm moves over cold air.
- 19) There are _____ kinds of frontal systems.
- A) one
B) two
C) three
D) four
E) five
- 20) The boundary between two air masses is called a(n):
- A) dividing line.
B) frontal system.
C) squall line.
D) instability line.
E) none of the above
- 21) Between a cold front and a warm front, we find:
- A) a very stable air mass.
B) a warm, moist, and unstable air mass.
C) a dry air mass.
D) a cold air mass.

Answer Key

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- 1) D
- 2) A
- 3) A
- 4) A
- 5) B
- 6) B
- 7) A
- 8) B
- 9) B
- 10) A
- 11) A
- 12) D
- 13) B
- 14) C
- 15) B
- 16) D
- 17) A
- 18) A
- 19) D
- 20) B
- 21) B