

Name _____

Student ID _____

- 1) Winds in the upper atmosphere are:
 - A) faster in summer than in winter in both the northern and southern hemisphere.
 - B) westerly only in the southern hemisphere.
 - C) westerly only in the northern hemisphere.
 - D) westerly in both the northern and southern hemisphere.
- 2) The **three-cell model** for general circulation:
 - A) includes a segment called the Hadley Cell.
 - B) is a better representation of the atmosphere than the single-cell model.
 - C) takes in to account the spin of the earth.
 - D) accounts for the positioning of the Polar and Sub-tropical jet streams.
 - E) all of the above
- 3) Monsoons in Asia:
 - A) start when the interior of the continent heats up in summer.
 - B) occur when the winds blow south from the Himalayas.
 - C) require an offshore wind.
 - D) are strongest in January and February.
- 4) Regarding troughs and ridges, it is true that:
 - A) troughs are associated with high pressure.
 - B) height contours for troughs are shifted toward the equator.
 - C) they most closely approximate a spiral pattern.
 - D) there is always an equal number of troughs and ridges across the continental United States.
- 5) This is NOT a part of the Hadley cell:
 - A) subtropical highs.
 - B) mid-latitude westerlies.
 - C) ITCZ.
 - D) trade winds.
- 6) The two major jet streams that impact weather in the northern hemisphere are the:
 - A) polar jet stream and the sub-tropical jet stream.
 - B) polar jet stream and the low-level jet stream.
 - C) the sub-tropical jet stream and the low-level jet stream.
 - D) None of the above. Jet streams are not significant to northern hemisphere weather.
- 7) The Santa Ana winds:
 - A) receive much of their heat from the hot deserts over which they travel.
 - B) are named after a former leader of Mexico.
 - C) result from high pressure over the Rocky Mountains.
 - D) are most common in summer.
- 8) The ITCZ:
 - A) is where trade winds originate.
 - B) receives a lot of rain.
 - C) forms the boundary between the Ferrel and polar cells.
 - D) is an area of high pressure.
- 9) The Hadley cell:
 - A) creates a high-pressure area at the equator.
 - B) originates with strong solar heating at the equator.
 - C) does not account for the formation of trade winds.
- 10) Ocean currents:
 - A) move at a 45 degree angle to surface air flow.
 - B) have a much stronger vertical component than horizontal component.
 - C) maintain the same direction at increasing depth.
 - D) are driven primarily by differences in ocean temperature over large distances.

Answer Key

Testname: QUIZ.3.TST

- 1) D
- 2) E
- 3) A
- 4) B
- 5) B
- 6) A
- 7) C
- 8) B
- 9) B
- 10) A