SWAC Hurricane Module Pre-Assessment

Lyndon State College

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Name:\_\_\_\_KEY\_\_\_\_\_\_\_

1. At what storm development stage, does a tropical system become officially named in the Atlantic Basin?
   1. Easterly Wave
   2. Tropical Depression
   3. Tropical Storm
   4. Hurricane
2. This basin features the greatest number and most intense concentration of tropical cyclones globally.
   1. Atlantic
   2. Pacific
   3. Northern Indian
   4. Australian
3. What is the principle reason why don’t hurricanes form near and immediately along the equator?
   1. Oceanic water temperatures are not sufficiently warm
   2. Wind pressure patterns producing diverging surface airflow
   3. The air mass is too dry aloft
   4. The Coriolis force is too weak to assist in rotating thunderstorm complexes
4. The peak hurricane activity in the Atlantic Ocean occurs during this month.
   1. July
   2. August
   3. September
   4. October
5. On average, approximately how many major hurricanes (category 3 or higher) make landfall in the United States?
   1. Once or not at all during a season
   2. Twice a season
   3. Three times a season
   4. Four times a season
6. The maximum potential strength of a hurricane correlates best with the following.
   1. Warmth of the oceanic temperatures
   2. Sea-level pressure strength
   3. ENSO conditions (El Nino/La Nina)
   4. Strength of the upper-level jet stream
7. Some hurricanes have an eye that results from the following.
   1. Strong upward vertical motions releasing latent heat
   2. Strong downward motion (subsidence) that produces warmer temperatures and suppressed cloud formation
   3. The upper-level jet stream interacting with the storm
8. The strongest pressure gradient (and therefore strongest winds) within a hurricane tend to occur here.
   1. Immediately above the storm near the jet stream
   2. In the eye wall near the surface of the Earth
   3. Within the spiral rain bands the circle the storm
   4. In the center of the eye
9. The Saffir-Simpson scale rates a category #1 hurricane as having a sustained wind of at least \_\_\_\_ .
   1. 50 mph
   2. 65 mph
   3. 74 mph
   4. 88 mph
10. True/False: Most of the Atlantic Hurricanes begin their lifecycle as easterly waves off the coast of Africa.
11. Wind blows \_\_\_\_\_\_\_\_\_\_\_\_ around low pressure.
    1. Cyclonically (counterclockwise)
    2. Anticyclonically (clockwise)
12. On average, a hurricane will make landfall along the NJ/NY/CT/RI coast once every \_\_\_\_\_\_ years.
    1. 10
    2. 20
    3. 30
    4. 50
13. Climatologically, the most vulnerable area along the US coastline to hurricane landfalls is this state.
    1. Florida
    2. Texas
    3. South Carolina
    4. North Carolina
    5. Louisiana
14. This NOAA office is responsible for issuing hurricane/tropical storm warnings.
    1. National Hurricane Center
    2. Weather Prediction Center
    3. Storm Prediction Center
    4. Ocean Prediction Center
15. Which of the following is more difficult to forecast?
    1. Hurricane track paths (where they go)
    2. Hurricane intensity (how strong they are)
16. This circulation feature is largely responsible for the movement of Atlantic hurricanes as they approach the US mainland.
    1. The upper-level jet stream
    2. The subtropical high
    3. The subtropical low
    4. The continental pollution plume