**Hydroelectric and Wind Power Quiz**

**Directions:** *Identify the letter that best answers each question by placing it on the line of the corresponding number. You may use your notebook.*

\_\_\_\_1. Hydroelectric power accounts for about \_\_\_\_\_% of the U.S. energy demand.

1. 2.2
2. 6.7
3. 10.8
4. 22.7

\_\_\_\_2. What country is the largest producer of hydroelectricity in the world?

1. China
2. U.S.
3. Brazil
4. Russia

\_\_\_3. How many gallons of water does the Niagara Falls power plant divert from the river per second?

1. 1.5 million
2. 1.2 million
3. 748,000
4. 526,000

\_\_\_4. Only \_\_\_\_% of the U.S. hydroelectric potential has been developed.

1. 10
2. 20
3. 30
4. 40

\_\_\_5. Which of the following is not among the top three hydroelectric producing states in the country?

1. New York
2. Oregon
3. Washington
4. Colorado

\_\_\_6. How many U.S. states have utility-based wind power?

1. 35
2. 40
3. 45
4. 50

\_\_\_7. Currently, the U.S. produces enough wind energy to power \_\_\_\_\_ million houses.

1. 2
2. 10
3. 100
4. 20

\_\_\_8. How tall are the proposed Apex turbines for the Lighthouse wind project?

1. 200ft
2. 440ft
3. 615ft
4. 800ft

\_\_\_9. Which of the following is not a pro in regards to wind power?

1. Renewable
2. Limited pollution
3. Domestic
4. Scalable

\_\_\_10. 5 meters from the source, wind turbines are as loud as a jet engine.

1. True
2. False

**Directions**: *Fill in the blank with an appropriate word or phrase that best completes the statement.*

11. The amount of power generated in hydroelectricity is proportional to the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and the volume of the flow.

12. When dams are built ecosystems are segmented and \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ decreases.

13. Water exits a hydroelectric power plant through a pipe called a \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

14. Apex wants to build wind farms in the NY communities of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

and \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

15. There are currently over \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ wind turbines in the U.S.

**Directions:** *Answer each question completely.*

16. What is a salmon ladder? How do they work?

17. How did the Public Works Act (PWA) of the 1930s increase the potential for hydroelectricity?

18. The Bat is a helium-filled balloon used to generate electricity from wind. Explain the reasoning behind the Bat’s design and use potential.

19. What are the three main complaints surrounding wind turbines in the U.S.?

20. Rhode Island has experimented with wind turbines off their coast. Explain the debate. What is the reasoning behind putting turbines offshore, and why are citizens fighting back?