

## Landscapes Review ANSWERS (1-23)

1. (2) **the types of hillslopes and the stream patterns**

This is a little bit of a review question (youthful v. old age landscapes/streams).

If hillslopes are still high and steep, the rivers would be straight – this indicates the youthful stage of a landscape/stream.

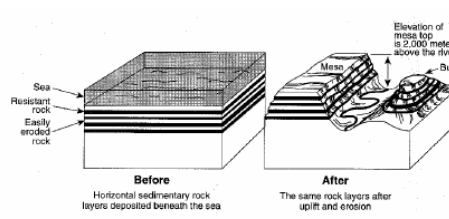
If hillslopes are more gradual (flatter), the rivers would meander more – this indicates an older area that had been worn down over time.

2. (2) **a sharp change in elevation between two adjoining bedrock structures**

Landscapes are defined by their bedrock structure. In addition, mountains, plateaus, and plains are the three different types of landscape regions – each of which has a different elevation.

3. (2) **plateau**

The picture shows a horizontal sedimentary bedrock structure with higher elevations (2,000 meters high) - this represents all the properties of a plateau landscape.



4. (4) **elevation and bedrock structure**

This question is just like question #2 – landscapes are different because of their bedrock and elevation.

5. (2) **Atlantic Coastal Lowlands**

Use *ESRT pages 2 and 3*.

1. Use the key to find “Cretaceous through Pleistocene unconsolidated sediments.”



2. Find the symbol on the *Bedrock Map*. (its under Long Island)

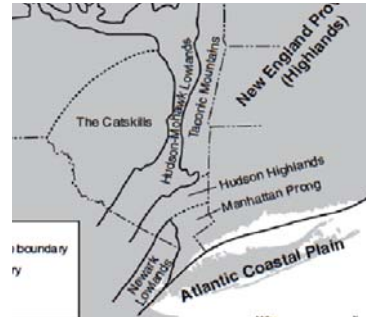


3. Match up Long Island to the *Landscape Map*

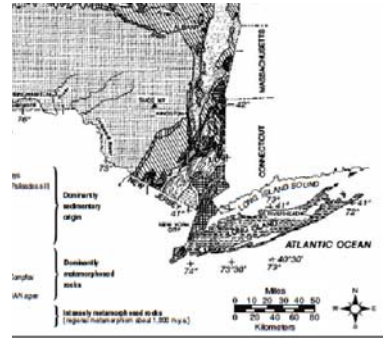


6. (3) **Devonian**  
Use *ESRT* pages 2 and 3.

1. Use the *Landscape Map* to find the Catskills.



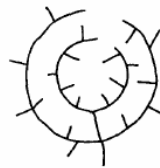
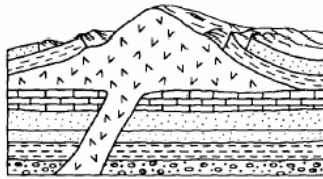
2. Match up the Catskills to the *Bedrock Map* to find the correct map symbol.



3. Use the Key to find the age of the rock.



7. (1)



This was one of the example stream patterns – a mountain surrounded by ridges that act like “gutters” or “moats” causing water to flow down and around the mountain in a circle.

8. (1) **horizontal bedrock**

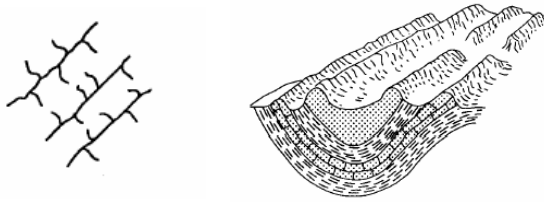
Part of the definition of a plateau region is horizontal bedrock – also, the other choices are not true of plateaus.

9. (1) **A - mountain, B - plain, C - plateau**

By analyzing the chart and picking out key information, the only answer possible is choice 1. A says it is high in elevation and faulted and folded - these are all qualities of mountains. B is low in elevation and flat - the qualities of a plains region. C says that it has medium elevations – plateaus.

Landscape	Bedrock	Elevation/Slopes	Streams
A	Faulted and folded gneiss and schist	High elevation Steep slopes	High velocity Rapids
B	Layers of sandstone and shale	Low elevation Gentle slopes	Low velocity Meanders
C	Thick horizontal layers of basalt	Medium elevation Steep to gentle slopes	High to low velocity Rapids and meanders

10. (1)



The pattern shown is the trellis pattern that formed in ridge valley systems. Rivers flow into the valleys between the mountains.

2)



mountain or volcano

3)



relatively flat area

4)



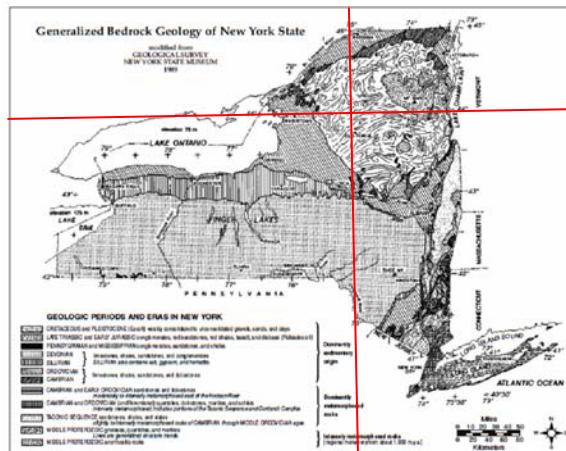
mountain surrounded by other ridges

11. (1) Adirondack Highlands

Use *ESRT pages 2 and 3* Go to each of the landscape regions on the Landscape Map and then compare them to the Bedrock Map until you find the one with nonsedimentary rock (that would mean either metamorphic or igneous rock). The only choice given that consists of metamorphic bedrock is the Adirondack Mountains.

12. (4) mountains

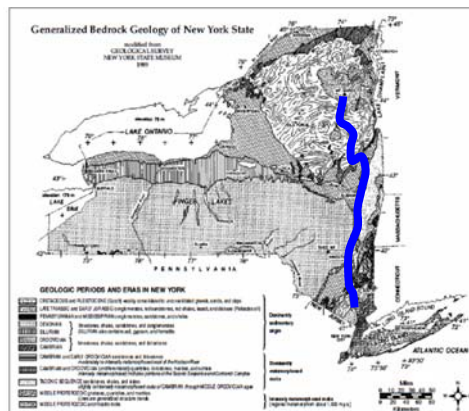
By doing a typical latitude and longitude question, you see where you end up on the Bedrock Map, and then match that area to the Landscape Map. This question lands you in the Adirondack Mountains.



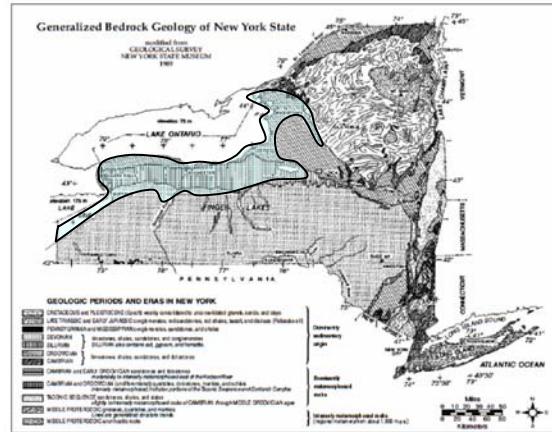
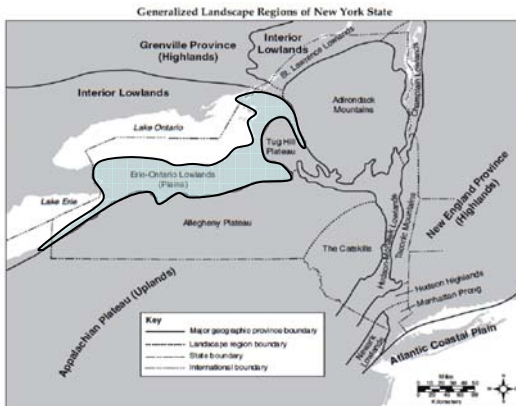
13. (2) B

Just gotta find it...

- A is not even in NY
- C is the Mohawk River
- D is the Susquehanna River



14. (2) Niagara Falls and Watertown  
Use ESRT pages 2 and 3



The only two cities that fall into the same landscape region are Niagara Falls and Watertown – they are both in the Erie Ontario Lowlands. You have to look carefully because the cities are on two different types of bedrock, but still in the same landscape region.

15. (4) surface bedrock characteristics

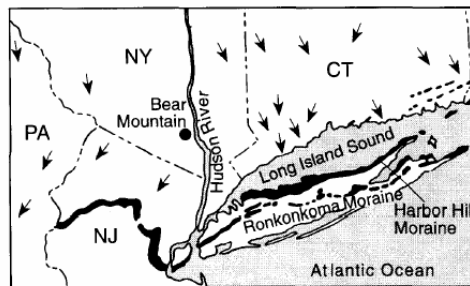
This question is getting repetitive right?

Remember – the bedrock structure is the main factor affecting the development of a landscape.

16. (4) southeast and southwest

The arrows represent the striations (grooves) made by a glacier. The grooves tell the direction of glacial movement. All the arrows in the diagram either point to the southwest or southeast.

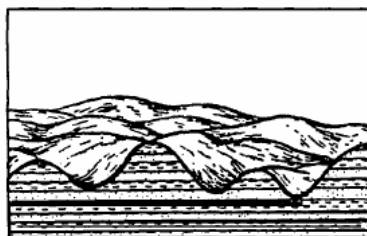
This makes perfect sense because the glaciers that deposited the sediments that make up Long Island came from the colder northern regions.



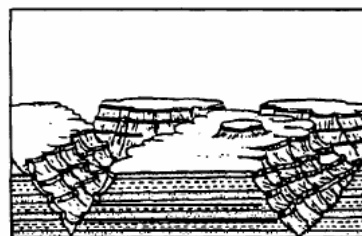
17. (3) Landscape A formed in a humid region, and landscape B formed in a dry region.

Landscape A has rounded landforms (water rounds the landscape) while landscape B is sharp and jagged (typical of an arid / desert region)

Landscape A



Landscape B



18. (3) **age of bedrock**

The age of bedrock was not on our list of factors that influence landscape development - the other 3 choices (bedrock composition and structure, uplifting and leveling forces, and type of climate) are on the list of factors affecting landscape development.

19. (3) **rates of uplift and leveling are equal**

If the altitude of the landscape is remaining constant, equilibrium exists - there is a balance between uplift and leveling.

20. (3) **both uplifting and leveling forces are acting on the Earth's crust**

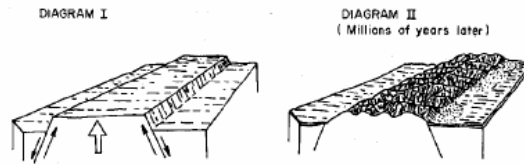
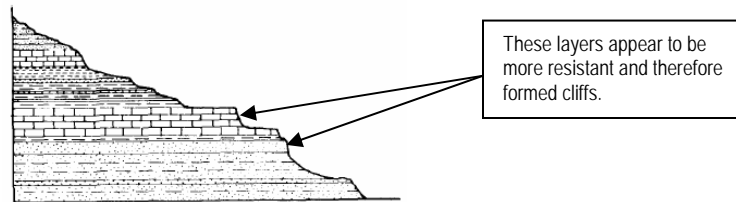


Diagram I shows uplift created by faulting (the big up arrow indicates this). The diagram shows the formation of a plateau (higher flat land). Diagram II shows the top of the plateau being worn down over millions of years - this represents the leveling (weathering and erosion) of the landscape.

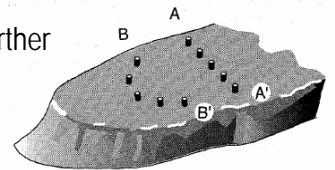
21. (1) **resistance of the rock layers**

This is an example of heterogeneous bedrock undergoing differential weathering. Different rock types weather at different rates causing an uneven appearance to the landscape.



22. (3) **the glacier is moving faster in the center than on the sides**

The markers were all placed in a straight line but the middle markers moved farther in the same amount of time. This shows that the center of the glacier moves quicker. This happens because the sides of the glacier rub against the valley walls and that friction slows its movement.



23. (4) **The glacier will increase in size and the ice front will advance.**

Gaining more snow mass is called accumulation - which means the glacier will get bigger. The more mass added will cause the glacier to slide downward and the front of the ice will move forward (advance).

