

Final Exam

Review Questions

Multiple Choice

Identify the choice that best completes the statement or answers the question.

- _____ 1. Scientists have determined that Mars has actively flowing water-filled stream channels.
a. true
b. **false**
- _____ 2. All the water in rivers and streams arrives directly from rainfall runoff.
a. true
b. **false**
- _____ 3. The primary stream fed by tributaries within a drainage basin is termed a _____.
a. lead stream
b. **trunk stream**
c. taproot stream
d. pirate stream
- _____ 4. In uniform sediments with a relatively constant slope at the surface, a _____ drainage network is expected.
a. **dendritic**
b. radial
c. rectangular
d. trellis
- _____ 5. In a region with prominent orthogonal sets of joints, a _____ drainage network is expected.
a. dendritic
b. radial
c. **rectangular**
d. trellis
- _____ 6. In a region characterized by a parallel series of ridges and valleys, a _____ drainage network is expected.
a. dendritic
b. radial
c. rectangular
d. **trellis**
- _____ 7. All flowing water on the continents' surfaces is confined to stream channels.
a. true
b. **false**
- _____ 8. In the region immediately surrounding an isolated volcano, a _____ drainage network is expected.
a. dendritic
b. **radial**
c. rectangular
d. trellis
- _____ 9. Ephemeral streams _____.
a. consist of a series of intertwined channels that are overloaded with sediment
b. **have flowing water either episodically or during a portion of the year**
c. have a channel that is highly sinuous (curvy)
d. are those that divert flow from streams they have intersected through stream erosion.
- _____ 10. Although the Nile River is longer, the Amazon River has the greatest discharge of any stream on Earth.
a. **true**
b. false
- _____ 11. The deepest part of the channel, where the stream flows fastest, is the _____.
a. base level
b. floodplain
c. stream gradient
d. **thalweg**

- _____ 12. As the velocity of flow decreases, _____.
- flow tends to become more laminar
 - the maximum flow velocity decreases
 - suspended sediment starts to be deposited
 - All of the above are correct.**
- _____ 13. The discharge of a river traveling through a humid region will typically _____ downstream; the discharge of a river traveling through an arid region will typically _____ downstream.
- increase; increase
 - decrease; decrease
 - increase; decrease**
 - decrease; increase
- _____ 14. Which has greater competence?
- a small mountain stream**
 - the Mississippi River
- _____ 15. Which has greater capacity?
- a small mountain stream
 - the Mississippi River**
- _____ 16. The sediment load of a stream consists of only those grains that are fine enough to stay in suspension.
- true
 - false**
- _____ 17. The stream gradient of most rivers _____.
- is greater near the source than near the mouth**
 - is greater near the mouth than near the source
 - does not change significantly as the river flows downstream
 - is greater for a meandering stream than for any other type
- _____ 18. The lowest elevation to which a stream can downcut is the _____.
- base level**
 - floodplain
 - stream gradient
 - thalweg
- _____ 19. The slope of a stream surface measured between two points along its course is the _____.
- base level
 - floodplain
 - gradient**
 - thalweg
- _____ 20. Ultimately, the base level of a stream valley can be no lower than _____.
- the average elevation of the continent on which it is found
 - sea level**
 - the average elevation of the ocean basins
- _____ 21. All else being equal, water will flow faster in a stream that has a _____.
- steep stream gradient**
 - gentle stream gradient
- _____ 22. All else being equal, water will flow faster in a stream with _____.
- well-developed meanders
 - a straight channel**
- _____ 23. Moving away from its headwaters, the flow of a stream usually becomes more _____.
- turbulent
 - chaotic
 - competent
 - laminar**
- _____ 24. The base level of a tributary would become _____ if a dam and reservoir were constructed where it flowed into a trunk stream.
- lower**
 - slower
 - faster
 - higher

- _____ 25. The distinction between a valley and a canyon is _____.
- nonexistent; the two terms are synonymous
 - the sides of a canyon are more steep than those of a valley**
 - the sides of a valley are more steep than those of a canyon
 - valleys are often cut by streams; canyons are eroded out by the wind
- _____ 26. At a waterfall, where two sedimentary lithologies are juxtaposed, which lithology is more likely to form the cliff over which the water falls?
- sandstone**
 - shale
- _____ 27. Within a meander, where is sediment most likely to be deposited?
- on the outer banks of the meander
 - on the inner banks of the meander**
 - uniformly to either side of the meander
- _____ 28. The inner edge of a meander, where sediment is deposited, is a(n) _____.
- meander neck
 - cut bank
 - point bar**
 - abandoned meander
- _____ 29. Meandering streams _____.
- consist of a series of intertwined channels that are overloaded with sediment
 - have flowing water either episodically or during a portion of the year
 - have a channel that is highly sinuous (curvy)**
 - are those that divert flow from streams they have intersected through stream erosion
- _____ 30. The outer edge of a meander, where material is being eroded, is a(n) _____.
- meander neck
 - cut bank**
 - point bar
 - abandoned meander
- _____ 31. The flat-lying area surrounding a river channel is termed the _____.
- base level
 - floodplain**
 - stream gradient
 - thalweg
- _____ 32. V-shaped stream valleys result from the downcutting of stream erosion and _____.
- mass wasting on the valley sides**
 - isostatic rebound
 - the "rule of the V's"
 - conservation of angular momentum
- _____ 33. Braided streams _____.
- consist of a series of intertwined channels that are overloaded with sediment**
 - have flowing water either episodically or during a portion of the year
 - have a channel that is highly sinuous (curvy)
 - are antecedent
- _____ 34. The shape of a delta is primarily determined by _____.
- the shape of the river channel near the mouth
 - the average grain size of the suspended and bed loads
 - whether river currents, wave-driven currents, or tidal currents are locally predominant**
 - the type of rock that is weathering at outcrop near the headwaters of the river
- _____ 35. A meander that is cut off to become completely isolated from the main channel, but which retains water, is a(n) _____.
- meander neck
 - cut bank
 - oxbow lake**
 - abandoned meander