

Physical Geology

Test 2

Spring, 2005

Please enter your answer in the space next to the number. The last page of questions are from slides that we will look at together later in the test.

1. _____(T/F) Quartz is less resistant to chemical weathering than feldspar.
2. _____(T/F) A vertical section through all the layers of a soil is called the soil horizon.
3. _____(T/F) The geographic setting where sediment is accumulating is referred to as the environment of deposition.
4. _____(T/F) Lithification refers to the processes by which unconsolidated sediments are transformed into solid sedimentary rocks.
5. _____(T/F) Tidal flats, lagoons, and deltas are examples of transitional environments.
6. _____(T/F) The nonfoliated metamorphic equivalent of limestone is marble.
7. _____(T/F) Contact, or thermal, metamorphism occurs in association with igneous intrusions.
8. _____(T/F) The zone of alteration associated with contact, or thermal, metamorphism is called an aureole.
9. _____(T/F) Solifluction is a common form of mass wasting in tropical deserts.
10. _____(T/F) Water is the most important agent of chemical weathering.
11. _____(T/F) The presence of bauxite indicates that an area once received a lot of rainfall.
12. _____(T/F) The OPEC oil embargo of 1973 was a result of the Iraq-Iran war.

13. _____The weathering of which of the following rocks is influenced most by the presence of carbon dioxide in the atmosphere? (a) chert (b) granite (c) limestone (d) shale
14. _____Which of the following minerals breaks down into clays when weathered? (a) feldspar (b) gypsum (c) halite (d) quartz
15. _____Which of the following minerals is most resistant to weathering? (a) feldspar (b) gypsum (c) halite (d) quartz
16. _____Which of the following rocks are you most likely to find atop ridges in the Appalachian Mountains? (a) basalt (b) limestone (c) sandstone (d) shale
17. _____Which of the following soil types is the least suitable for agriculture? (a) laterite (b) loam (c) pedalfer (d) pedocal
18. _____During the administration of which U.S. President was the Soil Conservation Service established? (a) Clinton (b) Hoover (c) Lincoln (d) Nixon (e) Roosevelt
19. _____Texaco was drilling through the bottom of Lake Peigneur because (a) the drillers misread their map (b) it's cheaper to drill in water than on land (c) oil tends to accumulate around salt domes (d) the water cools the drilling equipment
20. _____Three sediments are transported 100 miles, one by water, one by a glacier, and one by air. The most rounded sediment is likely to be the one transported by (a) air (b) a glacier (c) water
21. _____The Mississippi River has changed course a number of times. The reasons it remains in its current location include all of the following except (a) the Corps of Engineers has built large control structures at Old River (b) the distance to the Gulf of Mexico by way of the Atchafalaya River is shorter than the current route (c) levees line its current route (d) there are numerous economic reasons for forcing the river to maintain its current route
22. _____Which of the following materials is *not* a crucial part of the accumulation of oil and gas in coastal Louisiana? (a) limestone (b) salt (c) sandstone (d) shale
23. _____Which of the following sedimentary rocks is most common beneath Dubuque and at nearby roadcuts, railway cuts, and bluffs? (a) limestone (b) salt (c) sandstone (d) shale
24. _____Which of the following is *not* a chemical sedimentary rock? (a) chert (b) gypsum (c) limestone (d) shale
25. _____Which of the following is *not* a feature found in sedimentary rocks that gives clues to past environments? (a) foliation (b) graded bedding (c) mud cracks (d) ripple marks

26. _____ During the formation of coal, stagnant swamp water prevents the complete decay of plant material because of the absence of (a) biorganisms (b) heat (c) oxygen (d) sulfur
27. _____ When coal is burned, which of the following is *not* part of adverse ecological effects? (a) acid precipitation (b) burning of fool's gold (c) hydrolysis of feldspars (d) oxidation of sulfur (e) strip mining
28. _____ Which of the following types of stress is most likely to produce foliation? (a) confining pressure (b) directed (differential) stress
29. _____ If a sandy beach on the Mississippi coast was metamorphosed millions of years in the future, what type of rock is most likely to result? (a) gneiss (b) marble (c) quartzite (d) slate
30. _____ Which of the following is in the correct order from low-grade metamorphism to high-grade? (a) gneiss, schist, phyllite, slate (b) schist, slate, phyllite, gneiss (c) slate, gneiss, phyllite, schist (d) slate, phyllite, schist, gneiss (e) slate, schist, phyllite, gneiss
31. _____ Hydrothermal metamorphism is most common at (a) continent-continent collisions (b) midoceanic spreading centers (c) subduction zones (d) transform faults
32. _____ The metamorphic cores of mountain chains are formed by which type of metamorphism? (a) contact (b) hydrothermal (c) impact (d) regional
33. _____ Which of the following is neither sedimentary, metamorphic, nor igneous? (a) chert (b) granite (c) migmatite (d) shale (e) slate
34. _____ Which of the following is a debris flow on the sides of volcanoes? (a) lahar (b) laissez les bon temps rollez (c) loess (d) nueé ardente
35. _____ In Haiti, which of the following contributed most to the recent mudflows and flooding? (a) deforestation (b) earthquakes (c) excessive rainfall (d) poor driving habits
36. _____ Water contributes to mass wasting in all of the following ways *except* (a) adds weights to sediments (b) decreases friction (c) increases vegetation (d) increases weathering

The following questions refer to the slides that we will watch together.

37. _____Which of the following does *not* describe the slide shown? (a) fracturing due to expansion of rock as overlying material is removed (b) mechanical weathering (c) a rock avalanche (d) unloading
38. _____The beautiful shapes of the rocks shown is due to (a) frost wedging (b) oxidation (c) spherical weathering (d) unloading
39. _____The rock shown is (a) breccia (b) conglomerate (c) granite (d) quartzite (e) sandstone
40. _____The rock resulting from the process shown in the slide will show (a) cross-bedding (b) graded bedding (c) mudcracks (d) ripple marks
41. _____The largest crystals in the rock shown are (a) diamonds (b) garnets (c) mica (d) rubies (e) sapphires
42. _____On the top of the roof is which of the following rocks? (a) basalt (b) chert (c) shale (d) slate
43. _____The diagram shows the landslide at (a) Gros Ventre (b) I-40, North Carolina (c) Jamaica (d) Yungay, Peru
44. _____The mass wasting process shown is (a) creep (b) a lahar (c) a rock fall (d) a slump
45. _____The countries shown in red represent (a) all countries that export petroleum (b) countries with greater than 20% desert (c) members of OPEC (d) predominately Islamic countries
46. _____The black arrow indicates all of the following *except* (a) the failed third arm of a three-way split (b) the future location of the Mississippi River (c) a major earthquake zone (d) a subduction zone
47. _____The tombstone on the left in the slide is approximately the same age as that on the right. The difference in their appearance is due to (a) the climates in which they weathered (b) the materials from which they were constructed (c) the shape of their design (d) the skills of their makers
48. _____The yellow in the slide represents all of the following *except* (a) the areas of New Orleans first settled (b) the areas of New Orleans underlain by the finest sediment (c) the areas of New Orleans with the highest natural elevation (d) the areas of New Orleans with least subsidence (e) the old natural levees of the Mississippi River and its distributary channels
49. _____The mass wasting process shown is (a) creep (b) a lahar (c) a rock fall (d) a slump
50. _____Shown in the slide is an ore for aluminum called (a) bauxite (b) beercanundrum (c) corundum (d) sodalite