

**STUDY EXAM
FOR THE
SOIL EROSION AND SEDIMENTATION CONTROL TRAINING**

1. The two soil characteristics which primarily affect an area's susceptibility to erosion, runoff, and ability to establish vegetative cover are _____ and _____.
2. A soil which is fine textured and has the slowest infiltration rate is: sand ____ silt ____ or clay ____.
3. Using the textural triangle, a soil with 30 percent clay, 40 percent silt, and 30 percent sand would be considered a _____.
4. _____ refers to the maximum rate at which runoff passes a given location in terms of volume and time. It is measured in cubic feet per second (cfs) and must be determined to properly size water control structures such as diversions and spillways.
5. Determine the hydrologic soils group for the following soils:
Allouez _____ Gogebic _____
Blount _____ Vilas _____
6. With all other conditions being equal, which soil in question 5 would generate the largest volume of runoff? _____
7. What size sediment basin would be needed for a three-acre watershed using the "Storage Per Contributing Area" method? _____ cubic yards.
(NOTE: There are 27 cubic feet in one cubic yard.)
8. Calculate the weighted runoff curve number (RCN) for a 20-acre site with the following land uses. The soil is Hydrologic Group B.
9 acres pasture (poor condition) **WEIGHTED RCN** = _____.
7 acres paved parking
3 acres gravel road
1 acre park (fair condition)
9. The amount of rainfall expected in the eastern portion of the Upper Peninsula in a 24-hour period from a storm with a 10-year frequency is _____ inches.
10. Calculate the volume of runoff from the site described in questions 8 and 9. _____ cubic feet.
11. Sediment basins should be a minimum of _____ times longer than wide.
12. _____ is a planning process that provides a basis for implementing all erosion control measures in a timely and logical fashion during construction.

13. Sediment basins are generally not effective for removing _____ type soils from runoff.
14. The minimum width of a filter strip recommended by the Natural Resources Conservation Service to remove sediment from runoff for a site with a 6 percent slope and "C" soils is _____ feet.
15. Established grass channels can accommodate velocities up to _____ - _____ feet per second.
16. _____ are used to intercept runoff.
17. _____ involves planting live shoots of vegetation rather than seed. Typically, this method is used to establish beach grass on sand dunes and many ground covers and vines.
18. The *Guidelines for Vegetative Erosion Control* recommends that a minimum of _____ to _____ inches of good quality topsoil be placed when preparing a seedbed.
19. _____ added to the soil will raise the pH, correcting acid soil conditions.
20. _____ maps are generally used to define watershed boundaries.
21. When evaluating a site's erosion potential, good quality drainage maps make it unnecessary to visit the site in person. True _____ False _____
22. The *Guidelines for Vegetative Erosion Control* recommends Seed Mixture Number _____ planted at a rate of _____ pounds of seed (PLS) per acre for sites maintained as a lawn on somewhat poorly drained soils.
23. Using the Revised Universal Loss Equation, calculate the potential soil loss after removing the vegetation from a 4-acre site near Lansing (Ingham County). This site has an average slope length of 400 feet, an average slope of 3 percent, and the on-site soil is Marlette sandy loam. _____ tons
24. What would the potential soil loss be from the construction site described in question 22 if the site was covered with 1.5 tons/acre of straw mulch? _____ tons
25. Referring to question 23 above, assuming all other factors remained the same, would there be more or less soil loss if this site was in Luce County located in the eastern portion of the Upper Peninsula?
26. The center of a check dam should be _____ than the outer edges.
27. The peak discharge from one half inch of runoff on a 25-acre tract, with an 8 percent slope and an average flow length of 1000 feet is _____ cfs.

The following questions pertain to Part 91 and the Administrative Rules:

28. A permit is required for any earth change located within _____ feet of a lake or stream or that disturbs _____ or more acres.
29. The appropriate enforcing agency shall approve, disapprove, or require modification of an application for an earth change permit within _____ calendar days following receipt of the application.
30. All earth changes shall be designed, constructed, and completed in such a manner which shall limit the disturbed/exposed area for the _____ possible period of time.
31. Any temporary or permanent facility designed and constructed for the conveyance of water around, through, or from the earth change area shall be designed to limit the water flow to a _____ velocity.
32. Permanent soil erosion control measures for any disturbed land shall be completed within _____ calendar days after final grading or the final earth change has been completed.
33. The two main purposes of Part 91 are to control _____ and protect the waters of the state from _____.
34. Upon finding a violation of Part 91, the rules, or an approved ordinance, the county or local enforcing agent may issue a _____ and _____ order or revoke a permit.
35. Under the provisions of Part 91 a person engaged in agricultural practices may enter into agreement with the appropriate _____ in lieu of obtaining a permit from the County/Municipal Enforcing Agent.