

EXAM VERSION A

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For the following questions, please choose the answer that best completes the sentence or answers the question.

1. Erosion is _____.

- a) The protection, improvement, and use of natural resources according to principles that will assure their highest economic or social benefits.
- b) The process by which the land surface is worn away by the action of wind, water, and gravity.
- c) The process of restoring site conditions as they were before the land disturbance.
- d) The bringing of a surface or a stream bed to grade by running water.

2. Which of the following describes sedimentation?

- a) Lowering of the water surface or water table
- b) The gradual downward flow of water from the surface through soil to groundwater and water table reservoirs
- c) The settling out of soil particles transported by water and wind
- d) Participating in a sandcastle competition

3. The main two types of soil erosion discussed in this training are:

- a) Hot and cold
- b) Wind and water
- c) Spring and Summer
- d) Biological and Chemical

4. An example of a physical effect of erosion and sedimentation is:

- a) Headache
- b) Increased flooding
- c) Disruption of the food chain

5. What are the four factors that influence the erosion potential of an area?

- a) Land use, density, traffic, and population
- b) Atmospheric conditions, weather, rainfall, and climate
- c) Permitting, farms, traffic, and weather
- d) Soil characteristics, vegetative cover, topography, and climate

6. Best Management Practices (BMPs) for erosion and sedimentation control include which of the following?

- a) Silt fence and soil stabilization
- b) Caution tape and orange cones
- c) Permits and a hard hat
- d) Wind and water

7. Projects with which of the following issues could experience an enforcement action and possibly monetary penalties from regulatory agencies:

- a) Turbidity from your site contaminating nearby waterbodies
- b) Improperly installed silt fencing or improperly maintained silt fencing
- c) Sediment tracking to roadways from construction sites
- d) Operating without permits (dewatering, construction, etc.)
- e) Any of the above

8. When is Construction Generic Permit (CGP) coverage required?

- a) Only when your site will be active for more than 1 week
- b) When you will be using heavy equipment
- c) When your site disturbs over 1 acre or is less than 1 acre and part of a larger project
- d) Only when your site is next to a lake.

9. What are the concerns when dewatering discharges go offsite?

- a) Water snakes, flooding, and complaints from neighbors
- b) Turbidity, erosion, flooding, release of contaminated groundwater and other surface water quality violations
- c) Sea level rise, contamination, permitting fees
- d) Climate change, mosquitoes, algae

10. Identify correctly installed and maintained perimeter controls in the below photos:



11. Identify the properly installed and maintained inlet protection in the below photos:



12. What areas should be evaluated during your weekly/rain event inspections?

- a) All stormwater discharges to check for water quality violations
- b) BMPs identified in the SWPPP
- c) All discharge points to check for signs of erosion and sedimentation
- d) Areas used for storage of materials exposed to rainfall
- e) All of the above

13. Which of the following is considered a surface water quality violation?

- a) More than 5 alligators present in a waterbody
- b) Turbidity level is greater than 29 NTU above natural background conditions.
- c) Water skiers creating a huge wake on a heavily populated lake
- d) Tannic water in a natural stream

14. Within ____ calendar days after your site has achieved final stabilization and all discharges are eliminated, you must submit your NOT form according to the Construction Generic Permit (CGP).

- a) 30 days
- b) 60 days
- c) 14 days
- d) 1 year

15. BMP maintenance activities can be classified into categories including _____.

- a) Aesthetic
- b) Functional
- c) Corrective
- d) All of the above

16. How long does the operator have to update or revise the stormwater pollution prevention plan (SWPPP) when site conditions have changed?

- a) 1 day
- b) 7 days
- c) 30 days
- d) The SWPPP cannot be modified

17. Along with clearing, grading and excavating, the FDEP has determined that _____ also meet the definition of construction activity.

- a) mobile vehicle washing activities
- b) demolition activities
- c) concrete batch plant operation
- d) water line flushing using potable water

18. What is a major impact of sedimentation?

- a) Clogged and damaged fish gills
- b) Reduced light penetration affecting plants and animal life forms
- c) Decreased recreational use
- d) All of the above

19. A temporary sediment trap must have an initial storage volume of _____ cubic yards or _____ cubic feet per acre of drainage area, measured from the low point of the ground to the crest of the gravel outlet?
- a) 100/1000
 - b) 500/13000
 - c) 134/3600
 - d) 1000/6300
20. Sand, a Type A hydrologic group has _____ infiltration rates and _____ runoff potential even when thoroughly wetted.
- a) Low/ High
 - b) High/ Wide
 - c) High/ Low
 - d) Low/ Slow
21. A floating turbidity barrier/curtain is designed to _____ sediment laden water and allow enough _____ for sediments to settle out of suspension.
- a) Filter/ Distance
 - b) Contain/ Time
 - c) Filter/ Area
 - d) Contain/ Space
22. For proper installation of a silt fence, a trench _____ inches deep and _____ inches wide must be excavated. This will allow the _____ inches of fabric to be buried.
- a) 2"D x 2"W; 4"
 - b) 6"D x 4"W; 8"
 - c) 4"D x 6"W; 8"
 - d) 4"D x 4"W; 8"
23. The maximum spacing between check dams should be such that the _____ of the upstream dam is at same elevation as the _____ of the downstream dam.
- a) Bottom/ Top
 - b) Center/ Edge
 - c) Top/ Bottom
 - d) Edge / Flow line
24. When sodding a slope, start at the _____ and work toward the _____.
- a) Beginning / end
 - b) Center / edges
 - c) Top / bottom
 - d) Bottom / top

25. What is the purpose of having baffles in a sediment basin?

- a) Increase flow length
- b) Decrease flow length
- c) Create turbulence
- d) Looks good

26. The type(s) of dewatering in Florida that generally produces clear, non-turbid groundwater is/are:

- a) Horizontal sock pumping
- b) Rim ditch with open intake
- c) Well-point pumping
- d) Both a and c

27. A stormwater conveyance channel is a constructed waterway. What kind of lining should it have?

- a) Silver
- b) Riprap
- c) Erosion resistant
- d) Sod

28. In a SWPPP the who makes up the Stormwater Team?

- a) Dozier operator
- b) Qualified inspector
- c) Cement Foreman
- d) Sod Farmer

29. A detention basin is designed to store stormwater on site and then _____.

- a) Allow time for percolation
- b) Release at a controlled rate
- c) Allow time for evaporation
- d) Filter the water

30. The four principle factors influencing soil erosion are:

- a) Permits, Equipment, Schedule, & People
- b) Vegetation, Soils, Topography, & Climate
- c) Weather, Soils, BMP's, & Maintenance
- d) Time, BMP's, People, & Soils

31. Keep runoff velocities _____ and _____ runoff on the site.

- a) High/ Keep
- b) Low/ Retain
- c) High/ Contain
- d) Slow / Don't keep

32. An important principle of erosion and sediment control is to implement a thorough _____ and _____ program.

- a) Clearing & Grading
- b) Seeding & Mulching
- c) Breakfast & Lunch
- d) Maintenance & Follow-up

33. Apply _____ practices to prevent excessive on-site damage.

- a) Sediment Control
- b) Fair Labor
- c) Environmentally Friendly
- d) Erosion Control

34. During Phase I of site development even the smallest sites will require the installation of _____ practices prior to site clearing and grading.

- a) Security
- b) Sanitation control
- c) Perimeter control
- d) Crowd control

35. Proper fertilizer and pesticide application control under the GI-BMP Program is what kind of BMP?

- a) Nonstructural BMP
- b) Erosion BMP
- c) Structural BMP
- d) Sediment Control BMP

36. In flowing water, turbidity curtains should be placed _____ to the direction of flow in the receiving water body.

- a) Perpendicular (across)
- b) Parallel (along)
- c) Diagonal
- d) Not at all

37. For a type III turbidity barrier installation, where are the anchor lines attached?

- a) Barrier
- b) Buoy
- c) Chain
- d) Nearest tree

38. What do we want to avoid when constructing a retention basin with heavy equipment, especially in the basin floor?

- a) Shopping carts
- b) Excessive scarification
- c) Tourists
- d) Excessive compaction

39. During construction, how often should inlets, outlets, and other control structures be inspected?

- a) Weekly (every 7 calendar days)
- b) After every 1/2" or greater storm event
- c) Both a. & b
- d) Daily

40. What should you look for when inspecting storm drain inlets after major storms?

- a) Clogging, bypassing, & piping
- b) Aquatic plants
- c) Loose change
- d) Discoloration

41. What should you look for when inspecting outlets (i.e., mitered end) after major storms?

- a) Clogging, bypassing, & piping
- b) Erosion and/or sediment
- c) Loose change
- d) Discoloration

42. The maximum spacing between check dams should be such that the _____ of the upstream dam is at same elevation as the _____ of the downstream dam.

- a) Bottom/ Top
- b) Center/ Edge
- c) Top/ Bottom
- d) Edge / Flow line

43. A stand of vegetation is considered fully established after how long?

- a) 1 week
- b) 1 month
- c) 1 year
- d) 2 years

44. An outlet protection device is designed to prevent scour at outlets and minimize erosion downstream by reducing the _____ of concentrated stormwater flows.

- a) Volume
- b) Sediment load
- c) Frequency
- d) Velocity

45. When placing riprap great care must be taken to avoid damaging the _____ while placing the stone.

- a) Geotextile
- b) Toes
- c) Stones
- d) Equipment

46. What could happen to blown straw mulch which is not anchored, crimped, or tacked?

- a) It could be blown or washed away
- b) It can be stolen
- c) It can tear fabric
- d) It won't take root

47. Before applying topsoil, what should be done to the subsoil to insure proper bonding with the topsoil?

- a) Apply tackifier
- b) Apply lime & fertilizer
- c) Discing & Scarifying
- d) Apply mulch

48. When sodding a slope, in which direction should the strips be laid?

- a) Up and down the slope
- b) Perpendicular to the slope
- c) 45 degrees clockwise
- d) North

49. The process by which the land surface is worn away by the action of wind, water, and gravity is:

- a) Sedimentation
- b) Erosion
- c) Abrasion
- d) Development

50. The settling out of soil particles transported by water and wind is called:

- a) Abrasion
- b) Mud
- c) Sedimentation
- d) Erosion

51. The four processes of overland erosion are:

- a) Detachment, Transport, Settling, & Deposition
- b) Raindrop(Splash), Sheet, Rill, & Gully
- c) Clearing, Grading, Cutting, & Filling
- d) Raindrop, Rill, Transport, & Deposition

52. When installing erosion control nets or blankets, work from the ____ toward the ____.

- a) truck / chowline
- b) bottom / top
- c) center / edges
- d) top / bottom

53. When sodding a slope, start at the _____ and work toward the _____.

- a) Beginning / end
- b) Center / edges
- c) Top / bottom
- d) Bottom / top

54. Stormwater Retention basin is designed to allow the storage volume to recover through percolation and evaporation in how many hours?

- a) 24 Hours
- b) 48 Hours
- c) 72 Hours
- d) 120 Hours

55. What is the first thing to install during site clearing and grading?

- a) Office trailer
- b) Landscaping
- c) Perimeter controls
- d) Sanitary facilities

56. During the building construction stage, two concerns for the inspector are:

- a) Increased traffic & excavation
- b) Vandalism & theft
- c) Bad food & gambling
- d) Bad attitudes and hurt feelings

57. When should sediment control BMPs be removed?

- a) After 14 days
- b) When they are needed on another job
- c) When the inspector & superintendent agree that the area is stabilized
- d) After 7 days

58. Unless otherwise specified, when should accumulated sediments be removed from a sediment control BMP?

- a) At 90 % capacity
- b) At 75 % capacity
- c) At 50 % capacity
- d) At 25 % capacity

59. In dealing with the public it is most important to follow proper legal procedures of your company and to always be _____ and _____.

- a) Courteous & fair
- b) Assertive & aggressive
- c) Charming and witty
- d) Humble & apologetic

60. Where and how often should the inspector write a report?

- a) At Starbucks once a week or after a half inch rain event and order one grande latte on ice
- b) Once a week in your office by copying last week's inspection report
- c) On site, and only should you see noncompliance problem
- d) At the construction site, and every seven calendar days or after a half inch rain event

61. When you arrive at the construction site, you should start your inspection by ?

- a) Driving through the site and complete your inspection form and notes in your truck
- b) Start at the lowest discharge point sampling with your turbidity meter and work your way back to the highest point on the job site
- c) Walking along the roadway and completing your inspection
- d) Completing your inspection report from the construction site trailer in the air condition

62. What does undercutting of a silt fence indicate?

- a) Lack of soil cohesion
- b) Improper installation
- c) Burrowing animals
- d) The flap is too short

63. What do gullies in a channel bottom indicate?

- a) Too much velocity for the selected channel lining
- b) Too many people walking over the channel bottom
- c) Lack of commitment
- d) Deliberate noncompliance

64. What parts of a stormwater pond are most likely to fail due to improper compaction?

- a) Burrowing animals
- b) Aquatic plants
- c) Ornamental plants
- d) Structural elements (i.e. pipes)

65. What is the purpose of an exfiltration trench?

- a) Dewater site
- b) Provide below ground retention
- c) Pre-treat runoff
- d) Stabilize slopes

66. The key to efficient and cost-effective erosion control is to plan construction activities in _____ to reduce the erosion potential of the site.

- a) Cities
- b) Phases
- c) Wetlands
- d) Georgia

67. Pollution source control planning on an active construction site should cover the following elements:

- a) Storage of construction materials, chemicals and waste
- b) Vehicle wash areas
- c) Equipment maintenance and repair
- d) All the above

68. _____ are the last line of defense and one of the most visible and maintenance-intensive BMPs on an active construction site.

- a) Erosion controls
- b) Non-structural controls
- c) Perimeter controls
- d) Trees

69. A silt fence should only be installed for sediment capture under _____ conditions.

- a) channel flow
- b) hurricane
- c) sheet flow
- d) all of the above

70. When properly installing a silt fence, a trench shall be excavated approximately _____, backfilled and compacted.

- a) 4 inches deep and 4 inches wide
- b) 8 inches deep
- c) 4 inches deep
- d) 8 inches deep and 8 inches wide

71. A _____ is intended to divert overland sheet flow to a stabilized outlet or a sediment- trapping facility during the establishment of permanent stabilization on sloping, disturbed areas.

- a) stabilized construction exit
- b) check dam
- c) baffle
- d) temporary diversion berm

72. Various storm drain inlet protection devices are available for different applications depending on the site conditions and type of inlet; however, all are for drainage areas no greater than _____ acre(s).

- a) 1
- b) 5
- c) 10
- d) 15

73. If a sediment basin is designed as a permanent structure, the bottom of the basin should be excavated to 6-12 inches higher than the eventual bottom of the retention to ensure _____ once construction is complete.

- a) removal of accumulated sediments
- b) engineer approves the final pond
- c) ponds collect water
- d) good fishing habitat

74. Which best management practices can be used in live streams?

- a) silt fence
- b) check dams
- c) concrete washouts
- d) none of the above

75. Three examples of structural stormwater BMPs are:

- a) education, street sweeping & concrete washouts.
- b) exfiltration trenches, swales & retention ponds.
- c) silt fence, concrete washout & exfiltration trenches.
- d) retention ponds, detention ponds & temporary construction exits.

76. Three examples of non-structural stormwater BMPs are:

- a) education, street sweeping & concrete washouts.
- b) exfiltration trenches, swales & retention ponds.
- c) silt fence, concrete washout & exfiltration trenches.
- d) retention ponds, detention ponds & temporary construction exits.

77. Dewatering methods for managing nonstormwater discharges and removing accumulated stormwater from depressed areas at a construction site include:

- a) sediment traps and basins
- b) weir tanks
- c) chemical treatment
- d) all the above

78. When using chemical treatment systems for dewatering, a key point to remember is:

- a) the right chemical at the right dosage.
- b) set it and forget it.
- c) dilution is the solution to pollution.
- d) none of the above.

79. Prior to discharge, each batch of chemically treated stormwater must be sampled and tested for compliance with _____.

- a) pH limits
- b) turbidity limits
- c) pH and turbidity limits
- d) none of the above

80. Which type of permit integrates stormwater quantity and quality, as well as wetland protection requirements, into a single permit?

- a) NPDES Stormwater Construction Generic Permit
- b) Generic Permit for the Discharge of Produced Groundwater
- c) Florida Environmental Resource Permit (ERP)
- d) local building permit

81. When conducting a site inspection, you should always complete the inspection form(s):

- a) As soon as you return to your office
- b) No more than 5 days after the inspection
- c) Same day as inspection at the local coffee shop
- d) While on the job site every time

82. Upon completion of this class when does your certification expire as a “Qualified Stormwater Management Inspector?”

- a) 1 year
- b) 5 years
- c) 10 years
- d) It does not expire

83. Sediments should be removed before they reach _____ of the original height of the any BMP.

- a) 25 %
- b) 40 %
- c) 50 %
- d) 70 %

*Please answer the following questions as **True (T)** or **False (F)***

- 84. Your erosion control plan is the same as your SWPPP.
- 85. Best Management Practices (BMPs) are not necessary for a site smaller than one acre.
- 86. Mulching, seeding, and sodding are examples of soil stabilization methods.
- 87. Maximizing the amount of soil that is exposed on a construction site is an effective way to prevent and control erosion.
- 88. Clogged fish gills and reduced light for aquatic plants are examples of biological effects of erosion and sedimentation.
- 89. Vegetative cover plays an extremely important role in controlling erosion.
- 90. Sediment control practices require less maintenance than erosion control practices.
- 91. Curb inlet protection devices should have an overflow space so as to prevent flooding.
- 92. Physical impacts of erosion are inexpensive and easily managed.
- 93. You don't have to control erosion on projects smaller than one acre.
- 94. Inspectors should let contractors know immediately if there is a problem with their site's erosion and sediment control measures.
- 95. Under the NPDES program you have 30 days to repair a damaged silt fence.
- 96. Silt and sand are the two soils that cause turbidity issues in Florida.
- 97. Rain events less than 0.50 inches do not require a NPDES inspection.
- 98. Temporary construction entrances need at least 6 inches of stone thickness to properly support vehicle weight.
- 99. A stand of permanent grass vegetation is considered established after two mowing events.
- 100. A paved flume should have hydrostatic relief holes when seasonal high water table or seepage from slopes is a concern.

**PLEASE COMPLETE THE INSTRUCTOR EVALUATION
FORM IN THE BACK OF YOUR COURSE MANUAL AND TURN
IT IN WITH YOUR EXAMINATION ANSWER SHEET AND BOOKLET.**

THANK YOU FOR ATTENDING!