

**The Florida Stormwater, Erosion, and Sedimentation Control
Inspector Training and Certification Program
FINAL EXAMINATION**

1. **Name** _____
(Please print your name **clearly** and **exactly** as you want it to appear on your certificate!)

Contractor's / P.E. License # _____

Agency/Organization _____

Department/Division _____

Mailing Address:

2. Street _____

3. City _____ 4. State _____ 5. Zip Code _____

6. Business Phone Number _____

7. E-mail Address _____

8. Exam Location _____

9. Instructor Name(s) _____

10. Date(s) _____

Printing clearly on the items above will count towards your overall test score.

*****The CODE of HONOR*****

On my honor, and the honor of my profession and my organization, I
pledge to uphold the articles of The Stormwater Inspector's Creed. I will
complete this examination by myself with no assistance from others.

(Signature)

(Date)

Do not write below this line. For official use only.

Total Points = 100

Total Missed - _____

Your Score _____

The minimum passing score is 70%

PRINT NAME: _____

DATE: _____

Multiple choice - select the best answer. One point per question

11. ____ 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
12. ____ Minimize the ____? of the area exposed at one time and the ____? of exposure.
 - a. Length/ Width
 - b. Erosion/ Liability
 - c. Extent/ Duration
 - d. Size/ Liability
13. ____ Keep runoff velocities ____? and ____? runoff on the site.
 - a. High/ Keep
 - b. Low/ Retain
 - c. High/ Contain
 - d. Slow/ Don't keep
14. ____ 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
15. ____ 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
16. ____ Apply ____? practices to prevent excessive on-site damage.
 - a. Sediment Control
 - b. Fair Labor
 - c. Environmentally Friendly
 - d. Erosion Control
17. ____ 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
18. ____ A stormwater conveyance channel is a constructed waterway. What kind of lining should it have?
 - a. Silver
 - b. Riprap
 - c. Erosion resistant
 - d. Sod
19. ____ 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
20. ____ 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
21. ____ 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"

22. ____ According to the NPDES Stormwater Construction Generic Permit, permanent stabilization must be installed within ____ of final grading.
a. 30 days b. 60 days c. 7 days d. 1 year
23. ____ 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
24. ____ 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
25. ____ For a type III turbidity curtain installation, where are the anchor lines attached to?
a. Curtain b. Buoy c. Chain d. Nearest tree
26. ____ A retention 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 compaction d. Discharge the water
27. ____ Which portion of the plan gives exact information on the type of BMP, installation procedures, materials, special considerations, etc.?
a. Narrative b. Site plan c. Details & specs. d. Calculations
28. ____ 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
29. ____ During construction, how often should inlets, outlets, and other control structures be inspected?
a. Weekly b. After every 1/2" or greater storm event c. **a. & b.**
30. ____ What should you look for when inspecting storm drain inlets after major storms?
a. Clogging, bypassing, & piping b. Aquatic plants c. Loose change
31. ____ 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
32. ____ 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 / Flowline
33. ____ A stand of vegetation is considered fully established after how long?
a. 1 week b. 1 month c. 1 year d. 2 years
34. ____ 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

35. ____ When placing riprap great care must be taken to avoid damaging the ____ while placing the stone.
 a. Geotextile b. Toes c. Stones d. Equipment
36. ____ What could happen to blown straw mulch which is not anchored, crimped, or tacked?
 a. Blown or wash away b. It can be stolen c. Tear fabric d. It won't take root
37. ____ 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
38. ____ 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
39. ____ The process by which the land surface is worn away by the action of wind, water, and gravity:
 a. Sedimentation b. Erosion c. Abrasion d. Development
40. ____ The settling out of soil particles transported by water and wind is called:
 a. Abrasion b. Mud c. Sedimentation d. Erosion
41. ____ 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
42. ____ When installing erosion control nets or blankets, work from the ____ toward the ____
 a. truck / chowline b. bottom / top c. center / edges d. top / bottom
43. ____ When sodding a slope or waterway, start at the ____ and work toward the ____
 a. Beginning / end b. Center / edges c. Top / bottom d. Bottom / top
44. ____ After identifying all critical areas on the Erosion and Sediment Control plan, what should the superintendent do next?
 a. Locate those areas on the site b. Forget about them
 c. Change the plan d. Eliminate them
45. ____ During the pre-construction conference, the superintendent and the inspector should discuss and agree on all aspects of ____ .
 a. Politics b. The plan c. The calculations d. Football
46. ____ What is the first thing to install during site clearing and grading?
 a. Office trailer b. landscaping c. Perimeter controls d. Sanitary facilities

47. ____ 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
48. ____ When should sediment control BMPs be removed?
- a. 14 days
 - b. When they are needed on another job
 - c. When the inspector & superintendent agree that the area is stabilized
 - d. 7 days
49. ____ Unless otherwise specified, when should accumulated sediments be removed from a sediment control BMP?
- a. @90% capacity
 - b. @ 75% capacity
 - c. @50% capacity
 - d. @ 25% capacity
50. ____ In dealing with the public it is most important to follow proper legal procedures and to always be ____ and ____.
- a. Courteous & fair
 - b. Assertive & aggressive
 - c. Charming and witty
 - d. Humble & apologetic
51. ____ Where and how often should the inspector write a report?
- a. In the office, weekly
 - b. In the office, only for violations
 - c. On site, violations only
 - d. On site, every inspection
52. ____ When reviewing plans, locate the project with respect to the watershed. What should you look for at this point?
- a. The nearest lunch buffet
 - b. Where water enters and exits the site
 - c. Which political district it is in
 - d. Calculations
53. ____ 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
54. ____ At the end of the pre-construction conference, the inspector should have a ____ for communicating concerns about erosion and sediment control.
- a. County Commissioner
 - b. Secretary
 - c. Contact person
 - d. Psychic
55. ____ What do gullies in a channel bottom indicate?
- a. Too much velocity for the selected channel lining
 - b. Excessive abrasion factor in the runoff
 - c. Lack of commitment
 - d. Deliberate noncompliance
56. ____ 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)
57. ____ What is the purpose of an exfiltration trench?
- a. dewater site
 - b. below ground retention
 - c. pre-treat runoff
 - d. stabilize slopes

58. ____ Which part of the erosion control plan shows the limits of clearing and grading?
a. Narrative b. Site plan c. Details & specs d. Calculations
59. ____ What is the purpose of a paved flume?
a. A guide for lawn mowers b. Safely convey runoff down a slope
c. Access the basin floor d. Safe skateboarding
60. ____ BMP maintenance activities can be classified into categories including ____ ? ____ .
a. aesthetic b. functional c. corrective d. all of the above
61. ____ When constructing a temporary construction exit, ____ ? ____ should be placed on the ground prior to spreading the gravel.
a. The erosion control plan b. Geotextile
c. Construction & demolition debris d. Trash bags
62. ____ Where should effective tree protection should be installed?
a. A minimum of 8ft. from the trunk b. At the nursery
c. Girdle the trunk d. project limits
63. ____ The Florida NPDES Construction Generic Permit (CGP) requires:
a. Development and implement an SWPPP
b. Post a copy of the NOI or acknowledgement letter
c. Undergo inspections and retain records
d. All of the above
64. ____ 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
65. ____ The NPDES Stormwater Program regulates construction activities that disturb 1 or more acres of land and:
a. discharges stormwater to groundwaters of the State
b. involves any dewatering activities
c. discharges stormwater to surface waters of the state or to an municipal separate storm sewer system (MS4).
d. none of the above
66. ____ Along with clearing, grading and excavating, 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
67. ____ Which of the following is not required content for a SWPPP?
a. A designated break area b. A site map
c. A narrative description d. A signed and dated certification statement

68. ____ What are the four principal factors that influence the erosion potential of an area?
- Atmospheric conditions, weather, rainfall and climate
 - Land use, density, traffic and population
 - Permitting, farms, traffic and weather
 - Soil characteristics, vegetative cover, topography and climate
69. ____ What is NOT a major impact of sedimentation?
- Damage to fish gills
 - Reduced light penetration
 - Increased recreation use
 - None of the above
70. ____ Soil conditioners and amendments are used on a site to make the soil suitable for ____.
- grading
 - hauling
 - vegetative growth
 - construction of a stormwater facility
71. ____ The type(s) of dewatering in Florida that generally produces clear, non-turbid groundwater is/are?
- Horizontal sock pumping
 - Rim ditch with open intake
 - Well-point pumping
 - A and C
72. ____ The Florida soils that have the greatest potential for causing turbidity are?
- Clay and muck
 - Sand and clay
 - Muck and sand
 - Marine sands and limerock
73. ____ A sediment basin should be installed when there are ____ or more acres of exposed contiguous drainage area on an expose construction site.
- $\frac{1}{4}$ acre
 - $\frac{1}{2}$ acre
 - 1 acre
 - 5 acres
74. ____ What is the maximum drainage area for the effective use of a perimeter silt fence?
- $\frac{1}{4}$ acres
 - 1 acre
 - 5 acres
 - 10 acres
75. ____ Street sweeping, proper fertilizer and pesticide application, and public education are examples of _____ stormwater BMPs?
- Mitigation
 - Non-Structural
 - Public
 - Retrofitted
76. ____ What important role does vegetative cover play in controlling erosion?
- Shields the soil from raindrop impact
 - Roots hold soil particles in place
 - Slows the velocity of runoff
 - All of the above
77. ____ Obstructed stream channels, increases in flooding, and costly stormwater system maintenance are the results of _____ impacts of sedimentation.
- physical
 - biological
 - wind
 - none of the above
78. ____ Silt fence was **not** designed to capture which size soil particles?
- gravel
 - sand
 - silt
 - clay and muck

79. ____ 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
80. ____ 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 of the above
81. ____ 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
82. ____ 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
83. ____ 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
84. ____ A ____ is intended to divert overland sheetflow 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
85. ____ When a turbidity curtain is no longer required as determined by ____, the curtain and related components shall be removed in a manner that minimizes turbidity.
 a. the superintendent b. the engineer
 c. the inspector d. the owner
86. ____ 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 ____.
 a. 1 acre b. 5 acres c. 10 acres d. 15 acres
87. ____ 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. 134 / 1000 c. 100 / 3600 d. 134 / 3600
88. ____ 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

89. ____ Which best management practices can be used in live streams?
a. silt fence b. check dams c. concrete washouts d. none of the above
90. ____ 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.
91. ____ 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.
92. ____ 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 of the above
93. ____ 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.
94. ____ 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
95. ____ 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
96. ____ A construction project in Tallahassee falls within the boundaries of which water management district?
a. Northwest Florida Water Management District
b. Suwannee River Water Management District
c. St. Johns River Water Management District
d. South Florida Water Management District
97. ____ A construction project in Miami falls within the boundaries of which water management district?
a. Northwest Florida Water Management District
b. Suwannee River Water Management District
c. St. Johns River Water Management District
d. South Florida Water Management District

98. ____ 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
99. ____ Does this certification require continuing education hours?
- a. yes b. no
100. ____ What is considered a passing score on the exam?
- a. 50 b. 60 c. 70 d. 80