

GROOMER OPERATOR CERTIFICATION QUIZ

To successfully complete this quiz, the Testee **MUST** answer **56 questions CORRECTLY**.

Completed tests are to be **signed by the Trail Administrator** and returned to:

NH Bureau of Trails
Attn: Groomer Operator Certification
172 Pembroke Road
Concord, NH 03301

Date: _____

Testee Name: _____ **Testee's Phone #:** _____
 (Print First and Last Name) (In case there are questions on your quiz)

Club: _____

Trail Administrator Signature: _____

1. Snowmobile trail grooming is:

- a) the single largest expense of a snowmobile trail program
- b) using mechanical equipment to produce a high density snow surface
- c) very demanding work that requires your undivided attention at all times
- d) all of the above

2. Moguls are:

- a) similar to washboards on a gravel road
- b) patterns of mounds and dips formed in the trail's snow surface perpendicular to the direction of a snowmobile's travel
- c) fun to ride
- d) undesirable to snowmobilers
- e) a, b and d above
- f) all of the above

3. Moguls should be:

- a) cut off at the top and filled in the bottom
- b) completely cut away
- c) enhanced with the front blade
- d) all of the above

4. The four basic operations of trail grooming include removing the mogul, processing the snow, compressing the snow and set-up.

- True
- False

5. Snow must roll or churn to be processed with a grooming drag.

- True
- False

6. Trail set up can be similar to freezing a tray of ice cubes – after an hour you may have a crust on the surface of the ice cube but the center isn't frozen, so you have to wait a few more hours for the ice cubes or the trail to fully freeze solid.
- True
- False
7. It generally takes a couple of hours or more of being undisturbed for snow to bond and reach full strength.
- True
- False
8. The length of time needed for a trail to set-up correctly can vary from two to six or even more than ten hours, depending upon the temperature and moisture content of the snow.
- True
- False
9. Grooming implements include:
- a) drags and planers
- b) groomers
- c) rollers and compactor bars
- d) a and c above
10. The purpose of the front blade on a groomer is to clear rocks, stumps, and downed trees from the trail to make it safe.
- True
- False
11. The primary purpose of a groomer is to provide the power to pull a grooming implement like a drag, roller, or to carry a compactor bar across the top of the snow.
- True
- False
12. The groomer is the most important piece of the grooming equipment and has a greater impact on proper trail grooming than does a drag or roller used behind it?
- True
- False
13. If you were to use only one grooming implement to build a trail that is both smooth and level, it would in most cases be a:
- a) multi-blade drag
- b) compactor bar
- c) single blade drag
- d) front blade

- 14. A very simple, lightweight implement that is very maneuverable and useful for initial trail set-up early in the season or deep snow events is a:**
- a) multi-blade drag
 - b) compactor bar or roller
 - c) single blade drag
 - d) front blade
- 15. Overloading the cargo area on a groomer can impact the vehicle's weight, flotation, and center of gravity.**
- True
 - False
- 16. Too low of a ground pressure can cause a groomer to sink into snow rather than stay on top of the snow.**
- True
 - False
- 17. The frame of a drag must be rigid and rectangular to prevent it from cutting or compacting unevenly.**
- True
 - False
- 18. The cutting blades on a multi-blade drag are typically mounted in a "stepped" position, downward from front to rear.**
- True
 - False
- 19. The maximum width of a grooming implement, such as a drag, is:**
- a) dictated by the narrowest width of the trails to be groomed
 - b) dictated by the width and power of the groomer
 - c) wider is better
 - d) generally narrower than the groomer
 - e) a and b above
- 20. The tracks on a groomer must be large enough to keep it on or near the surface of snow.**
- True
 - False
- 21. A groomer with a high center of gravity will be stable and safe to operate on steep hillsides.**
- True
 - False
- 22. When a vehicle breaks traction, spins out, and gets stuck, it happens because the force required to shear the snow is less than the force required to pull the load (drag and groomer).**
- True
 - False

23. The overall weight of a groomer:

- a) unimportant
- b) can be compensated for by track area
- c) can cause problems when crossing bridges and ice
- d) b and c above

24. Ensuring the safety of groomer operators includes:

- a) making sure they are prepared for trouble by carrying safety and emergency equipment
- b) providing them with communication equipment and requiring them to file a "trip plan"
- c) a good preventative maintenance program
- d) requiring that they wear seat belts
- e) a and b above
- f) a, b, c, and d above

25. New equipment helps compensate for poor equipment operators.

- True
- False

26. Budget, weather, and traffic patterns should be considered when developing and managing weekly grooming schedules.

- True
- False

27. Groomer operators should never operate equipment while under the influence of drugs or alcohol because their abilities and judgment will be impaired.

- True
- False

28. When parked on the trail, always shut the groomer's lights off to avoid blinding or distracting oncoming snowmobile traffic.

- True
- False

29. A Trail Master:

- a) is someone who directs all aspects of a grooming program and establishes priorities and schedules
- b) is an important position for a successful grooming program
- c) is anyone who wants to be in charge
- d) should understand heavy equipment operation and maintenance, understand snow mechanics, and be able to work with people
- e) All but c above
- f) all of the above

30. Mid-day grooming in high traffic areas is useful to keep moguls from getting too deep and promote safety.

- True
- False

31. The following factors should be considered when establishing grooming priorities:

- a) available labor and operating budget
- b) number of groomers available
- c) total miles/kilometers of trail to be groomed
- d) snowmobile traffic patterns
- e) locations of businesses, parking areas, and attractions
- f) length of season, snow conditions, and weather patterns
- g) all of the above

32. The ground pressure and weight of a groomer allows it to safely cross frozen bodies of water.

- True
- False

33. The faster the grooming speed, the better the trail quality and durability will be.

- True
- False

34. The amount of snow depth required to begin grooming operations will vary by area and is affected by the type of terrain and by the type of snow. Generally, there should be at least _____ of snow to begin grooming operations that are effective and worth the cost of grooming.

- a) 2-5 inches
- b) 5-8 inches
- c) 8-18 inches
- d) 18-24 inches

35. Groomer operators should pay special attention to berms in curves and try to work down the high outside edges.

- True
- False

36. It is recommended to groom against snowmobile traffic on the left side of the trail if that side is rougher than the right side of the trail.

- True
- False

37. The best temperature for grooming with a drag is between 5 and 25 degrees F

- True
- False

38. The most effective grooming speed with a drag is:

- a) 3 to 4 mph
- b) 5 to 10 mph
- c) 10 to 15 mph

39. Grooming at night will generally produce the best quality trail because temperatures are typically colder so the snow will flow better and set up harder; traffic volumes are also typically at their lowest which helps provide set up time.

- True
- False

40. Mirrors on a groomer are typically useless and aren't important since there isn't a need to see behind the groomer.

- True
- False

41. It is okay to dump snow from the groomer on roads and driveways because it helps warn motorists and landowners that they are crossing a snowmobile trail.

- True
- False

42. A drag should be more than 12 inches wider than the groomer.

- True
- False

43. Normally, unplowed roads should never be groomed wider than twice the width of the grooming equipment.

- True
- False

44. If the groomer becomes stuck:

- a) quickly give it more throttle and spin the tracks
- b) don't spin the tracks
- c) gently rock the vehicle back and forth, packing the snow
- d) consider unhooking the drag – sooner versus later
- e) consider getting out of the groomer and shovel
- f) all of the above except a
- g) all of the above

45. When backing up with a grooming drag on the trail, a pile of snow is often created. It is okay to leave this pile of snow on the trail since snowmobiles will knock it down.

- True
- False

46. When grooming trails, always:

- a) stay on the trail with the grooming equipment
- b) feel free to pick new routes to provide variety since the groomer will go through anything
- c) turn around only where there is ample turning room and it is known that the snow base will support the equipment, preferably using areas where turn-a-rounds have been made before
- d) a and c
- e) a, b, and c

47. If there is a lack of new snow in the middle of the trail, the options could include:

- a) set the drag blades to pull snow in from the trail edges
- b) use the front blade on the groomer to direct snow in from the edge of the trail
- c) don't bother grooming – put the wheels down until you find snow
- d) operate the groomer on the outside edge of the trail
- e) use the drag to level the dirt and rocks
- f) a, b and d above

48. Never stop to remove rocks, logs, limbs or other debris that is lying on or in the trail surface because they provide solid filler that helps the trail last longer.

- True
- False

49. When snow is spilling out the side of a drag, it means that the drag is carrying too much snow, likely set too low, or going too fast, and is not working effectively.

- True
- False

50. A groomer operator should be cautious about following a snowmobile track across an open area.

- True
- False

51. Common operator abuses of tracked equipment include:

- a) going too slow
- b) spending too much time warming up the engine
- c) performing unwarranted pre-operation inspections
- d) unauthorized modifications
- e) none of the above
- f) b and d above

52. Preventative maintenance can help prevent downtime and keep equipment safe to operate. The four main elements of a good preventative maintenance program include:

- a) measurement, fueling, tinkering and replacement
- b) monitoring, greasing, tuning and overhauls
- c) inspection, lubrication, adjustment and repair
- d) surveillance, servicing, alignment and rebuild

53. Before operating any grooming equipment, always check all fluid levels and check for leaks.

- True
- False

54. If you identify a significant repair that needs to be made while doing a pre-operation inspection, go ahead and do the scheduled grooming run and report the condition to the Grooming Manager when you return.

- True
- False

55. When operating a vehicle for the first time, run it as fast as it will go to see if it has enough power.

- True
- False

56. A groomer should be shut off immediately after a grooming shift to conserve fuel.

- True
- False

57. Never remove ice or snow that has built up on grooming equipment since it might damage the equipment; plus the added weight is good for trail compaction.

- True
- False

58. Groomers should be stored inside or have their tracks removed or covered during the off-season to avoid UV light damage to rubber tracks and belts.

- True
- False

59. Groomer operators' only purpose is to groom trails and therefore should not concern themselves with watching for unsafe situations or missing signs along the trails or reporting these situations to the Trail Master or Trail Administrator.

- True
- False

60. Record keeping is a nice thing to do and should be done only when an operator has time for it.

- True
- False

61. It is important to track fuel, labor, maintenance, and other operating costs, along with the number of hours that are required to groom an area's trails, to determine per hour or per mile grooming costs.

- True
- False

62. A Daily Operator's Log can:

- a) be a waste of time
- b) help document trails groomed, unusual events, hours for GIA and equipment use
- c) increase liability
- d) none of the above

Thank you for your time, efforts, and energy in assisting to make the NH Snowmobile Trail System the best in the Northeast. Be safe on the trails!