

Registered Professional Foresters Association of Nova Scotia Examination, Fall 2007

*** The due date for this exam is Friday, December 14, 2007 (see notes 5&6) ***

Notes to Examination Candidates:

1. This examination is an open book, take-home examination.
2. Read all questions carefully.
3. Style and format is to be clear and understandable and consistent with good use of the English language. For further clarification of questions of style and format, see Appendix D of the By-Laws of the Registered Professional Foresters Association of Nova Scotia.
4. This is a professional examination; professional communication is expected. For this examination, answers are to be typed in Times New Roman with a font size of twelve; or legibly handwritten in black ink on lined letter sized paper and with fewer than three corrections per page. Illegible and/or unclear words and or sentences will be considered erroneous.
5. Examinations are to be submitted by mail and postmarked on or before the due date. E-mailed examinations will not be accepted.
6. If you feel compassion should be extended to you with respect to the deadline because of misfortune, let the Registrar know, and he/she will inform the examination committee.
7. Answer format for each question will be:
 - a. **TRUE and FALSE:** Write the number of the question, followed by a clear T or F.
 - b. **Multiple choice:** Write the number of the question, followed by the option or options you've chosen. Some questions may require the specification of more than one option.
 - c. **Short answer:** Write the number of the question, followed by your response. Cite any relevant legislation.
 - d. **Essay:** Write the number of the question, followed by your response. **Answer 3 questions only.** Cite any relevant legislation.
8. If you wish, you may add a list of question numbers and comments at the end of the exam for the consideration of the Examiner.
9. Practices such as cheating, plagiarism and other misrepresentations relating to this examination will not be tolerated. The Association does not condone these or any other form of academic misconduct under any circumstance and will take appropriate disciplinary action.
10. True/False questions are worth 2 points, Multiple Choice 2 points, Short Answer 3 points, and Essay questions 8 points. Multiple choice questions must include all correct options. The inclusion of any incorrect options will result in the assignment of 0 points for that question. You are only required to answer 3 essay questions; if you answer all of them, only the first 3 will be marked.
11. **The examination fee is \$50.00. This must be submitted to RPFANS before your exam will be marked.** Return exams to: The Examiner, RPFANS; PO Box 1031, Truro, NS B2N 5G9.

Question #4 has been deleted.

True or False

1. The Forest Enhancement Act limits the size of clearcuts in Nova Scotia.
2. In time off from your forester duties, you are crossing a clearcut to get to a favorite fishing hole, license in hand. The landowner accosts you, and forbids you to cross his land, suggesting that he is planning to turn the clearcut into a corn field for biofuel next year. You should conclude that this is cultivated land, and withdraw.
3. Forest management techniques to be used on Crown land shall be designed to involve selective cutting and the shelterwood system.
4. ~~A primary wood products scaling license authorizes a scaler to grade and count bales of Christmas trees.~~
5. You run a small business that operates a specialized sawmill, purchasing 1200 cubic meters of oak a year and producing casks for the aging of wine. The provincial government requires you to report this production, but the required form does not have a category for this specialized product.
6. To accurately measure the width of a watercourse before harvesting the area surrounding it, you should measure it at least 3 times.
7. By definition, a species cannot be both "extinct" and "at risk".
8. A company begins acquiring aspen for the offshore production of toothpicks, chopsticks and matchsticks. The Primary Forest Products Marketing Board can require them to report who they bought the aspen from, where they live, and how they earn a living.
9. The new owner of some forest land engages you to develop a harvesting and regeneration plan. While you're working on the plan, you receive a call from an environmental group that says the previous owner granted them a perpetual conservation easement on the area which prohibits forest harvesting. When you inform the owner, she says that since she bought the land, the agreement is no longer in force. You should agree with her and finish the plan.
10. Forest management programs in the province shall be based upon the principle of protecting the forest from unwanted competing vegetation, among others.
11. You need a permit to burn slash on a clearcut on April 12 anywhere in Nova Scotia.
12. The Forest Enhancement Act and its regulations specify standards for acceptable natural regeneration.
13. As an employee of the Department of Natural Resources, you meet a cottage owner discussing his plans to remove some scrubby white spruce from the beach in front of his cottage. Your advice to him should be that he can never willfully remove trees from a designated beach.

Multiple Choice

14. You have blocked a forest road to prevent access to an area where a potentially dangerous silvicultural operation is taking place. A local citizen demands you let her pass, as the road and your blockade are on Crown Land. You refer her to your permit signed by an Nova Scotia Department of Natural Resources (NSDNR) employee. What legalizes that permit?
- Off-highway vehicles Act
 - Pesticide Regulations
 - Crown Lands Act
 - Private Ways Act
 - Legal principle known as 'In Mightus Est Rightus'
15. Which of the following Acts defines, or has regulations under that Act which define, the monetary penalty for failing to scale in the legally required manner?
- the Scalers Act (1989)
 - the Scalers Act (2001)
 - the Forests Act
 - the Woodsmens Liens Act
 - the Crown Lands Act
16. Following are some observations taken from silvicultural treatments completed on private lands. Which are acceptable to fulfill the obligations of a Registered Buyer? Indicate as many as necessary.
- an oak plantation with 78% stocking at 2.0m by 2.0 m;
 - an intensive plantation of white spruce with 1000 stems/ha of naturally occurring balsam fir
 - an herbicide treatment applied to natural regeneration with 1450 crop trees per hectare
 - a commercial thinning that removed half the basal area from a stand that originally had 30 square metres/ha.
 - a selection cut in a hardwood stand leaving 19 m²/ha, with 12m² consisting of yellow birch, white ash, and beech.
17. You have a specialty market for elm wood, but your log source is in a Dutch Elm Disease infested zone. This wood:
- cannot be removed from April 15 to Oct. 30;
 - is illegal to ship;
 - can be shipped, but only to a mill that is also in an infested zone;
 - must be shipped with Form AGR1307;
 - must be free of bark to be shipped
18. As you are travelling across Crown land, you note a sign indicating that the area nearby has been designated for forest research, signed by the Minister of Natural Resources. The source of his authority, in this case, is:
- the Crown Lands Act
 - the Forests Act

- c) the Forest Research Act
- d) the Forest Enhancement Act
- e) the Magna Carta

19. You are re-marking a long boundary line on one side of your property. You must (indicate all that apply):

- a) blaze only trees within 1 metre of the line;
- b) replace a rotted marker post with a new post 1.5 metres long;
- c) re-blaze old blazes;
- d) blaze trees within 1 metre of the line differently, depending on their position;
- e) use a machete, knife, or axe

20. You are storing glyphosphate in a central area to resupply an aerial spray operation. Your storage area does not need one of the following:

- a) the phone number of the local hospital on display;
- b) a first aid kit;
- c) a facility that prevents uncontrolled release of the herbicide;
- d) a clearly visible warning sign;

21. Which Act references the Minister of Natural Resources' role in incorporating consideration of both wildlife and recreation opportunities into the forest management process?

- a) Crown Lands Act
- b) Forest Act
- c) Wildlife Act
- d) all of the above
- e) a & b
- f) b & c

22. According to the Forests Act, which of the following are not included in the 'intent and purpose' of the Act?

- a) providing effective management of all Crown lands;
- b) providing a mechanism for effective public input into the forest management process on Crown land;
- c) doubling of forest production by the year 2025;
- d) enhancing the viability of forest-based manufacturing and processing industries;
- e) developing a healthier, more productive forest capable of yielding increased volumes of high quality products

23. While preparing a harvest prescription, you note boreal felt lichen on many of the trees in the stand. You decide:

- a) to add herbicide to the regeneration component of your description;
- b) to employ disc trenching after harvest;
- c) to plant red spruce after harvest;
- d) to employ site sensitive harvest practices;
- e) to not harvest the site.

24. The Foresters Association Act does not include statements on:
- a) the objects of the Association;
 - b) that only recognized schools provide the requisite education for membership with two years as a forester-in-training;
 - c) that you can be sued for professional actions construed as negligent that contribute to unsustainable forestry;
 - d) that you could be stripped of your membership for wearing your RPFANS shirt while publicly expressing racist comments, should it be deemed that harms the standing of the profession;
 - e) that discipline decisions can be appealed to the Supreme Court of Nova Scotia.
25. You observe a contractor using a fire pump feeding from a brook to wash down his skidder. Grease, dirt, oil, and other gunk are falling to the ground and slowly making their way into the brook, where coincidentally you caught a brook trout last year. According to the Fisheries Act, this individual is:
- a) in really big trouble;
 - b) depositing a deleterious substance into fish habitat;
 - c) unlawfully polluting fish migratory structures;
 - d) depositing a deleterious substance into a place under conditions where the deleterious substance may enter water frequented by fish;
 - e) breaking section 40(2)
26. You are conducting a prescribed burn when you hear on the radio that due to extreme conditions, all permits are suspended. You should:
- a) notify your nearest NSDNR office
 - b) as your fire is already in progress, you don't need to do anything
 - c) your action depends on whether you have an industrial or private permit
 - d) pretend you didn't hear the announcement
 - e) extinguish the fire immediately
27. You inspect a block with a 10-operator cleaning (PCT) crew. Which equipment combinations satisfy fire safety requirements? Indicate as many as necessary.
- a) 3 Halon Forest Fire Extinguishers, Mark III Modified Foam Dispersal system
 - b) 5 backpack water tanks, 5 shovels, 5 axes
 - c) 10 backpack water tanks, 10 shovels
 - d) 2 200 gallon water bags with hand pumps, 4 shovels, 2 pails, 2 pulaskis
 - e) Since you're operating next to a lake, your Mark III pump is sufficient
28. Under the federal Forestry Act, the Minister of the federal Department of Natural Resources can (indicate all that apply):
- a) order an independent forest inventory on provincial Crown lands in Nova Scotia;
 - b) unilaterally declare part of Nova Scotia a Forest Experimental Area;
 - c) may conduct as many economic studies relating to the forest resource in Nova Scotia as suits her fancy;
 - d) may sell timber from a Forest Experimental Area to a pulp mill;

e) put his name on lots of public works signs, in the hopes of garnering more votes in the next election.

Short Answer

Your answer should be approximately a paragraph in length, including an explanation and justification, including citation of relevant legislation.

29. An incorporated company goes bankrupt, defaulting on loans made to it by the Timber Loan Board. It appears the owners of the company, however, have managed to walk away with much of that loan money. Are they protected by the company's incorporated status? Cite the relevant regulations and conditions that must pertain.

30. What scaling licence is necessary to weigh primary wood products?

31. The Forest Enhancement Act states that on Crown land, forest management techniques shall ensure that planting is undertaken where sites are not expected to regenerate adequately on their own. Define 'adequately'.

32. You are working for an environmental NGO, who has issued you an ATV to visit harvest sites on Crown land for the purposes of determining whether the Crown is actively enforcing certain acts and regulations. You are visiting a harvest block when you note a possible infraction on the other side of a small stream. Can you legally ford the stream with your ATV?

33. You are seeking a contractor to spray herbicide from the ground on your Christmas tree lot. How will you determine who can legally provide this service? What if you want the adjacent red spruce plantation completed as well? Will your answer be the same if it's from the air instead?

34. You hear of a forest harvesting operation in Five Islands Provincial Park. For this to be legal, what must be true?

35. You have finished planting an area with red spruce seedlings supplied by a NSDNR tree nursery. You have about 100 trees left over; you take them home and give them to your mother-in-law, who desires a windbreak around her mobile home. The next day, a Conservation Officer apprehends you. What have you done wrong, and what will the penalty be?

36. You suspect trees in some forestland you own have become infested with the dreaded non-native Shebobian Trunk Miner, which may have come to Nova Scotia on a wooden pen you received as a gift when visiting Lower Shebobia last year. You consider ignoring the symptoms and cutting and marketing the wood as fast as possible to avoid the restrictive marketing regulation that will almost certainly result. Describe, with respect to pertinent federal legislation, while you will do what is also ethically correct.

37. You are asked to prepare a comprehensive plan to harvest and regenerate a forest block by John Smith. The block has no road access, and is surrounded by private lands that John Smith does not own. The owners of those lands aren't immediately willing to provide you with access.

Citing relevant legislation, describe the contents of the initial document you must prepare to obtain a legal right of way.

38. Your company has contracted to purchase and harvest standing timber on a large block of private land consisting of large-diameter white pine and red spruce. You are just starting to explain the company's policy of leaving intact patches within the harvest block, when the owner cuts you short. "Do that on your own land if you want, but this is my land and my money, and I want you to cut it all. If you have to leave anything, leave that tiny patch of small balsam fir - it's not worth anything anyway." What do you tell him?

39. What is the basis in law for the Minister of Natural Resources to conduct forest inventories? What methods of inventory does this encompass?

40. A field report comes in that all the legacy trees on a harvest block have since blown down. The area forester for your company instructs you to get a skidder crew out to pick it up for processing. Describe your response, with reference to pertinent legislation.

Essay

Answer **any 3** of the following questions.

41. Conventional wisdom suggests that the profession of forestry is at, or just recovering from, an all-time low in popular opinion. Will the RPFANS code of ethics help? Are companies conducting forest management bound by it? What additional legal instruments might strengthen this code?

42. You own and operate a sawmill. You intend to acquire 20,000 cubic metres of roundwood in the upcoming year from private lands and your own freehold. Describe your silvicultural obligations with respect to the Forests Act and its regulations. Note any submissions, 'red tape', etc., as required.

43. The Forests Act is directed towards, among other things, the doubling of wood supply by 2025, and creating more jobs immediately and in the longer term through improved productivity. At the same time, the Act commits the province to sustainability as the basis of all forest management programs. Can these goals be reconciled? In your answer, give consideration to:

- a) the economy
- b) the allowable cut effect
- c) natural disturbances
- d) competing forest values
- e) alternative land management systems (e.g., 'triad')

44. Describe how the Ecological Land Classification for Nova Scotia may improve forest management practice.

(See <http://www.gov.ns.ca/natr/forestry/ecosystem/elcpg1.htm> for information on the ELC in NS)