

VIRGINIA WING, CIVIL AIR PATROL  
AD HOC COMMITTEE ON GROUND SEARCH AND RESCUE

LEVEL III TEST

INSTRUCTIONS

1. Do not write in this booklet.
2. Record your answers on the answer sheets provided. Put your name and test number on both answer sheets.
3. This is a closed-book test based on the current standards and references in the Virginia Wing Ground Search and Rescue Program. Please do not discuss details of the test.
4. The test consists of three parts. Part One consists of 90 multiple choice questions, and is based on the Level II standards. Part Two consists of 45 multiple choice questions based on Level III standards. Use a separate answer sheet for each part. Part Three is an oral examination and will be administered as you turn in your written test materials.
5. This is not a timed test; however, you should be able to complete the written portion within one and one-half hours.

THIS TEST IS NOT TO BE DUPLICATED BELOW THE WING LEVEL.

See the Virginia Wing Ground Search and Rescue Program for information concerning the administration of this test.

PART II

1. Heat exhaustion resembles in its symptoms and signs, and indeed can be considered as a form of, hypovolemic shock.
  - a. True
  - b. False
2. Salt tablets should not be taken without water.
  - a. True
  - b. False
3. The term "hypothermia weather", referring to weather presenting a great risk of hypothermia, means:
  - a. temperatures near freezing, with wind and rain.
  - b. winter snowstorms with temperatures below  $-15^{\circ}\text{C}$ .
  - c. neither of the above
4. A person with frostbitten feet may walk out, but only after his feet have been rewarmed.
  - a. True
  - b. False
5. A person with severe chronic hypothermia is in grave danger of going into ventricular fibrillation (a type of heart attack) or other arrhythmias. Therefore, one must be extremely careful not to jostle such a patient.
6. When a hypothermia patient is rapidly rewarmed:
  - a. "afterdrop", paradoxical cooling of the body core below its previous temperature, may develop.
  - b. blood from the periphery, which is cold, anoxic, and has toxic metabolic products, may go back to the core and cause cardiac arrest or ventricular fibrillation.
  - c. excessive vasodilation (increase in volume of blood vessels) in the periphery may cause a relative hypovolemia and result in shock.
  - d. all of the above
7. Which of the following is not a good place to put hot packs when rewarming a hypothermia patient?
  - a. neck
  - b. groin
  - c. thighs
  - d. armpits
8. If a pair of boots fits with one pair of socks, an additional pair of socks is worn in the winter.
  - a. True
  - b. False
9. Cotton clothes (e.g. standard CAP fatigues) have a "wicking" action such that if a small part is exposed to rain, the entire garment will become wet in a short time. Therefore, cotton clothing, in general, is not appropriate for conditions where wet clothing could be dangerous.
  - a. True
  - b. False

10. Wet cotton clothing is very nearly useless for protection against cold.
  - a. True
  - b. False
11. Goose down is warm when wet; artificial fibers such as Fiberfill and Polargaurd are not.
  - a. True
  - b. False
12. Which of the following is most valuable during a forced overnight bivouac in a storm?
  - a. matches
  - b. metal cup
  - c. two plastic leaf bags
  - d. a compass
13. In order not to "burn" snow when melting it for water, it is usually necessary to start with a layer of liquid water at the bottom of the pot.
  - a. True
  - b. False
14. In general, a tent with a waterproof roof is better than one requiring an additional rain fly.
  - a. True
  - b. False
15. Spilled gasoline or alcohol on bare skin may cause instant frostbite in winter.
  - a. True
  - b. False

FOR QUESTIONS 16-19, SELECT THE BEST REASON FOR THE PARTICULAR ITEM TO BE REQUIRED OF A LEVEL II MEMBER.

16. Wool socks:
  - a. don't mat down like cotton, so they provide a cushioning effect.
  - b. are thicker than other socks.
  - c. don't shrink as much as synthetics.
  - d. are cheap and functional.
17. Two pair of socks worn with boots:
  - a. to keep toes from wiggling.
  - b. to prevent blisters.
  - c. to make boots fit.
  - d. are cheaper than one extra-thick pair of socks.
18. Tie-in ( 1.5 meters of 6 millimeter perlon rope tied in a loop):
  - a. to tie things onto pack.
  - b. for use as a prusik loop.
  - c. for use as a chin strap.
  - d. to tie a victim into the litter.
19. Balaclava:
  - a. as a substitute for snowshoes.
  - b. to prevent loss of heat from the head and neck.
  - c. a high-energy middle eastern dessert.
  - d. to cook with.

20. Which of the following is required of a Class B team?
  - a. hydraulic rescue tool
  - b. radiation monitoring equipment
  - c. backboard
  - d. IV supplies
  
21. The duties of the Base Officer of a Class A or B team include:
  - a. staying at Mission Base and relaying information to the team.
  - b. serving as the primary radio operator of the team at all times.
  - c. staying with the vehicle when the team goes into the woods.
  
22. In general, the correct order of the following search modes  
Containment  
Scratch Searching  
Saturation Searching  
during a lost person search is:
  - a. Containment, Scratch, Saturation.
  - b. Saturation, Containment, Scratch.
  - c. Containment, Saturation, Scratch.
  - d. none of the above
  
23. When an area to be line searched is relatively flat and featureless, the best type of line searching will be:
  - a. Contour search.
  - b. Grid search.
  - c. Cross--grid searching.
  - d. none of the above
  
24. According to Wartes, wide-spaced line searching is more efficient than close-spaced, in terms of Probability Of Detection (POD) per man-hour.
  - a. True
  - b. False
  
25. Syrotuck's "Analysis of Lost Person Behavior" indicates that lost persons, especially hikers, show a greater tendency to go downhill than uphill.
  - a. True
  - b. False
  
26. Binary search, as put forth by Kelley, is one of the most efficient forms of search strategy, if carried out properly.
  - a. True
  - b. False
  
27. In general, step-by-step trackers and ARDA search dogs are the most efficient lost person search methods available today.
  - a. True
  - b. False
  
28. Man-tracking and track detection are harder at mid-day than at dawn and dusk.
  - a. True
  - b. False
  
29. Green light (as from a flashlight with a green filter) will not destroy night vision.
  - a. True
  - b. False

30. Night vision is weaker at the center of the visual field than at the edges.
  - a. True
  - b. False
31. Which of the following knots is strongest in rope?
  - a. square knot
  - b. figure eight bend
  - c. water knot (overhand bend, ring bend)
  - d. barrel bend (double fisherman's knot, grapevine knot)
32. Which of the following knots is least prone to jamming in rope?
  - a. barrel bend (double fisherman's knot, grapevine knot)
  - b. water knot (overhand bend, ring bend)
  - c. butterfly knot
  - d. figure eight bend
33. Which knot is appropriate for "tying out" a damaged portion of a rope?
  - a. bowline
  - b. butterfly knot
  - c. anchor hitch
  - d. double sheet bend
34. Which of the following ascenders has the strongest holding power?
  - a. Prusik knot of 3/8" polypropylene or Tenstron
  - b. Jumar ascender
  - c. Gibbs ascender
35. With which of the following rappels is a bottom belay not effective?
  - a. figure eight
  - b. body
  - c. rappel rack
  - d. 6-biner
36. Blue Water rope is more resistant to light abrasion than Goldline; Goldline is more resistant to heavy abrasion than Blue Water.
  - a. True
  - b. False
37. Most ropes designed for lead climbing have a parallel-fiber core; most caving ropes (e.g. Blue Water) have a twisted or braided core.
  - a. True
  - b. False
38. Which of the following is a reason for using Blue Water rope over Goldline for rescue?
  - a. Blue Water has a greater capacity for energy absorption.
  - b. Blue Water is more resistant to heavy abrasion.
  - c. Blue Water is more easily examined for damage.
  - d. Blue Water handles better.
39. Brake bars may cause dangerous side-loading of carabiners.
  - a. True
  - b. False

40. "Army" rappels (using a diaper seat and a single non-locking carabiner for a carabiner wrap) are extremely dangerous. Which of the following is not a reason for this danger?
- Diaper seat slings will fail if cut in just one place.
  - Weld-abrasion of the seat by the rope is a common and severe problem.
  - The rappel develops inadequate braking force.
  - Non-locking carabiners may twist around and unclip from the rope, resulting in a very quick rappel.
41. In a multiple-pitch semi-technical descent, the uphill rope-handler becomes:
- the downhill rope-handler.
  - the belayer.
  - nothing; he stays as the uphill rope-handler.
42. Which of the following alternatives best describes the optimum orientation of the two "brake-bar" carabiners in a 6-biner rappel?
- gate sides next to each other, with gates opening in opposite directions.
  - gate sides next to each other, with gates opening in the same direction.
  - gate sides opposite, with gates opening in the same direction.
  - gate sides opposite, with gates opening in opposite directions.
43. "True double redundancy" in a Prusik (ascending) rig means:
- each part of the rig is doubled.
  - two points of contact with the rope.
  - any one contact with the rope may be removed, leaving the Prusiker in a satisfactory stance (i.e. not hanging upside down by a foot).
44. A downed military aircraft should be approached:
- from the left.
  - from behind.
  - from the front.
  - from downwind.
45. Which of the following is not appropriate to aircraft plexiglass windows?
- freezing with a CO<sub>2</sub> fire extinguisher and shattering.
  - use of a window punch
  - use of an axe or spring tool and sledge