Ropes and Knots

1. What is the maximum number of ropes that can be stored in each rope bag? p. 270

A.) Three
*B.) One
C.) Four
D.) Two

2. Where should the bight be formed when tying a sheet bend if the ropes are of unequal size? p. 279

*A.) Working end of the larger rope
B.) Standing end of the larger rope
C.) Standing end of the smaller rope
D.) Working end of the smaller rope

3. When was nylon introduced? p. 262

A.) 1955
B.) 1927
*C.) 1938
D.) 1961

4. Which type of rope is more suitable for most fire rescue situations? p. 265

*A.) Static
B.) Progressive
C.) Dynamic
D.) Reactive

5. Where should a tag line be attached when hoisting a ladder? p. 289

A.) To the top
*B.) To the bottom
C.) To the fly section
D.) To the connectors

6. Where should the second half hitch be when hoisting a pike pole? p. 289

A.) Near the handle end of the pike pole
*B.) Near the head of the pike pole
C.) In the center of the pike pole handle
D.) Over the head of the pike pole

7. In what position are power saws hoisted? p. 290

A.) Handle up
B.) Vertical
C.) Blade up
*D.) Level

8. What part of the rope is used to lift or hoist? p. 271

*A.) Running end
B.) Working end
C.) Standing part
D.) Rounding edge

9. What is the last thing that needs to be done when hoisting an uncharged hose line? p. 289

*A.) Pull additional hose line up
B.) Fold the hose on top of itself
C.) Tie a clove hitch knot near the nozzle
D.) Hoist the hose in the correct position

10. What should be done when tying a safety knot in a clove hitch? p. 273

A.) Tie the safety knot and then pass the rope around the object being used
B.) Safety knots are not used with clove hitches
C.) Thread the rope back inside of itself and then tie the safety knot
*D.) Pass the rope around the object being used then tie the safety knot

11. Where should the working end of the rope be looped when hoisting an exhaust fan? p. 291

A.) Around the fan blades
*B.) Around the fan handle
C.) Around the fan motor
D.) Around the fan assembly

12. Which type of knot is used when securing a rope to a fixed object or securing a person during a rescue? p. 279

*A.) Loop
B.) Bight
C.) Round
D.) Hitch

13. What should be marked to indicate the length of each rope? p. 262

A.) Rope end
*B.) Rope bag
C.) Storage compartment
D.) Rope length

14. Which can be used to join a rope to a chain? p. 279

A.) Bowline
B.) Figure eight bend
*C.) Sheet bend
D.) Water knot

15. Which is NOT a correct statement about hoisting an uncharged hose line? p. 289

A.) Fold about 3 feet (1 meter) of hose back on itself and place the nozzle on top of the hose
*B.) Secure the Becket bend about 6 inches (15 centimeters) from the fold
C.) Hoist the hose with the fold at the top and the nozzle facing down
D.) Tie a clove hitch near the end of the rope

16. How much of its weight can a manila rope absorb in water? p. 262

A.) 100 percent
*B.) 50 percent
C.) 75 percent
D.) 25 percent

17. What is the most common life safety rope carried by the fire service in the United States? p. 261

A.) Escape rope
B.) Technical use
C.) Gap rope
*D.) General use

18. What should be used when inspecting a rope for cuts, frays, or other damage? p. 269

A.) Winder
B.) Feet
*C.) Hands
D.) Hose washer

19. How many rungs from the top should the rope be passed between two beams when hoisting a ladder? p. 289

*A.) Three or four
B.) Five or six
C.) Two or three
D.) Four or five

20. What is used to attach a rope around an object? p. 271

*A.) Hitches
B.) Loops
C.) Bights
D.) Bends

21. Approximately how far from the end should an overhand knot be tied when tying a water knot in webbing? p. 286

*A.) 6 inches (152 mm)
B.) 4 inches (102 mm)
C.) 8 inches (203 mm)
D.) 2 inches (51 mm)

22. In what part of the rope should a loop be made around when tying a safety knot? p. 272

A.) Loose part
B.) Running end
*C.) Standing part
D.) Working end

23. What is formed by making a circle in the rope? p. 271

A.) Round turn
*B.) Loop
C.) Bight
D.) Bend

24. Where is the first figure eight knot tied when connecting two ropes with a figure eight bend? p. 279

*A.) Near the end of one rope
B.) In the middle of both ropes
C.) Near the end of both ropes
D.) In the middle of one rope

25. What is used to keep the nozzle in the closed position when hoisting a charged hose line? p. 289

A.) Loop
*B.) Bight
C.) Round turn
D.) Bend

26. Which type of rope is used to make ladder halyards? p. 262

*A.) Utility
B.) Gap
C.) Escape
D.) Technical

27. How many loops should be made around an object when tying a clove hitch around the object? p. 274

A.) Three
B.) None
*C.) Two
D.) One

28. How many people is the escape rope designed to hold the weight of? p. 261

A.) Three
B.) None
C.) Two
*D.) One

29. Which rope is often used for water rescue situations? p. 263

A.) Polyester
B.) Polyethylene
C.) Nylon
*D.) Polypropylene

30. What is the most common synthetic fiber used in life safety ropes? p. 263

A.) Polypropylene
*B.) Nylon
C.) Polyester
D.) Polyethylene

31. Why should ropes not be allowed to rub against one another? p. 268

A.) Causes a shock load
B.) Can entangle them
C.) Pushes abrasives inside
*D.) Generates heat

32. In which rescue situation is a rope thrown to the victim? p. 267

A.) Trench rescue
*B.) Water rescue
C.) Confined-space rescue
D.) Vehicle rescue

33. What type of knot should be used behind the nozzle to tie the end of the hoisting rope around a charged hose line? p. 289

A.) Half hitch
B.) Becket bend
C.) Bowline
*D.) Clove hitch

34. What should be done when placing rope back into a rope bag? p. 270

A.) Spool it
B.) Weave it
*C.) Load it
D.) Coil it

35. Which type of rope is prone to unraveling when a load is applied? p. 264

A.) Dynamic
B.) Braided
*C.) Twisted
D.) Kernmantle

36. What orientation should the palm of your hand have when grabbing the rope when tying a half hitch? p. 272

*A.) Away from you
B.) To the left side
C.) Towards you
D.) To the right side

37. Where is a loop formed when tying a figure eight on a bight knot? p. 279

A.) Standing end
B.) Running end
C.) Loose section
*D.) Doubled section

38. What is used to connect one rope to another during technical rescue incidents? p. 265-266

A.) Pulley
B.) Anchor plate
C.) Swivel
*D.) Carabiner

39. Which of the following should never be used when drying rope? p. 268

A.) Hangers
B.) Mechanical drying devices
C.) Air out of direct sunlight
*D.) Direct sunlight

40. What should be done with a life safety rope that is no longer usable? p. 270

A.) Repair it
B.) Mark it
*C.) Destroy it
D.) Clean it

41. How is the clove hitch tied in the open tightened? p. 273

A.) Pulling the same direction
B.) Pulling downward
*C.) Pulling in opposite directions
D.) Pulling upward

42. Which type of knot is very useful for attaching a rope to a fixed ring? p. 279

A.) Figure eight bend
B.) Figure eight loop
C.) Figure eight on a bight
*D.) Figure eight follow-through

43. What is the design load of a Class II harness? p. 266

A.) 800 pounds (363 kg)
B.) 1000 pounds (453 kg)
*C.) 600 pounds (272 kg)
D.) 1200 pounds (544 kg)

44. What is the first step taken when tying a figure eight knot? p. 279

A.) Loop the working end around the standing end
*B.) Form a bight in the rope
C.) Tie a standing safety knot
D.) The working end through the running end

45. How many layers are present in kernmantle rope? p. 264

A.) Four
*B.) Two
C.) One
D.) Three

46. What type of construction do most fire department life safety ropes use? p. 265

*A.) Static kernmantle
B.) Static braided
C.) Dynamic kernmantle
D.) Dynamic braided

47. Which type of life safety rope is stronger by design? p. 261

A.) Gap rope
B.) Technical use
*C.) General use
D.) Escape rope

48. How many primary rescue ropes are almost always attached to the rescuer during operations? p. 267

A.) Three
B.) Four
*C.) One
D.) Two

49. Which NFPA standard should be referenced for specific standards on life safety rope? p. 260

*A.) NFPA 1983
B.) NPFA 1992
C.) NPFA 1375
D.) NFPA 1971

50. Which of the following is NOT an advantage of synthetic ropes? p. 262-263

A.) Absorb less water than natural rope fibers
*B.) Resistance to damage from ultraviolet light
C.) Can be washed and dried
D.) Resistance to melting and burning

51. How should the Becket bend be tightened? p. 286

A.) Pull up on the second rope
*B.) Pull back on the second rope
C.) Pull back on the first rope
D.) Pull up on the second rope

52. In what position should an axe be hoisted? p. 287

A.) Horizontal with head away from the building
B.) Horizontal with head near the building
C.) Vertical with head up
*D.) Vertical with head down

53. How should the standard part of the rope be pulled when tightening a bowline knot? p. 279

A.) Downward
B.) Upward
*C.) Backward
D.) Forward

54. What would indicate possible damage to the inner core of a kernmantle rope? p. 269

A.) Visible cuts
*B.) Depressions
C.) Discolorations
D.) Fraying

55. What should be tied to keep the axe handle parallel to the rope during hoisting? p. 288

*A.) Half hitch
B.) Clove hitch
C.) Figure eight
D.) Safety knot

56. Which knot is acceptable to use when hoisting an axe? p. 287

A.) Figure eight bend
B.) Water knot
*C.) Figure eight on a bight
D.) Bowline

57. What should a correctly tied safety knot do when tested? p. 272

*A.) Slide
B.) Nothing
C.) Untie
D.) Tighten