



Pacific Ropes™



Name: _____

Score: ____ / 40 Date: ____ / ____ / ____

LEVEL TWO THEORY QUESTIONS

Planning & Management

1. On long drops the stretch in the un-weighted back-up rope may render it ineffective as you near the ground. What can you do about this?
2. What must you always have in the ends of your ropes?
3. What particular care should you take when using a fixed back-up device for lowering a casualty?
4. How would you work out the SWL of a rope?
5. What does WHMIS stand for?
6. Who or what is WHMIS designed to protect; the person, the equipment or both?
7. What is the minimum qualification period and logged hours required before you can progress to level three?
8. What does PPE stand for?
9. Which Part of WorkSafe BC regulation requires the employer to carry out risk assessments in accordance with IRATA?
10. Which Part of WorkSafe BC regulations specifically cover falls and prevention of falling?
11. Which Part of WorkSafe BC regulations require suitable equipment to be provided for the safe execution of work tasks and that proper training must be given?
12. Generally speaking what is the SWL of your rope access equipment?

13. What should you do if you suspect your rope and harness has been contaminated with unknown chemicals?

Equipment

14. What are the three principal aims of LOLER?
15. Under LOLER what does the term “load” apply to in rope access work?
16. Under LOLER what type of rope access equipment do the regulations apply to?
17. Under LOLER who should supervise all IRATA rope access work?
18. How is equipment traced to a certificate of conformity?
19. What information does a certificate of conformity contain?
20. When it is used for rope access work, at what interval should equipment be “thoroughly examined”?
21. Who can undertake a “thorough examination”?
22. What type of harness should you use in a fall arrest situation?
23. What types of harnesses may be suitable for rope access work?
24. How would you use the work positioning rings on a harness conforming to EN 358?
25. What type of karabiner locking mechanism is suitable for rope access?
26. Why are alloy karabiners prevented from use in some work environment such as the offshore oil sector?
27. What must be avoided when using “toothed” ascending devices?
28. What should you do if you are issued rope access equipment with no ID markings tracing it back to its certificate of conformity?

29. What force can be applied to a toothed ascending device before it begins to damage the rope sheath?
30. Name two types of back-up devices used in the rope access industry?

Rigging

31. By what percentage does a larks foot or choker attachment weaken a tape sling?
32. Other than a weakening effect, what should you be aware of when using lark's footed tape slings?
33. What is the correct/strongest way to load a karabiner?
34. Suggest two ways of loading a karabiner than would seriously weaken it?
35. What certificates do foot loops and etriers require and why?
36. What is the "critical angle" when rigging ropes with a "Y hang" and why?
37. When using rope protectors is it better to attach them to the structure or to the rope?
38. Give three different methods of preventing a rope from rubbing?
39. A 100kg load is hanging below your "Y hang". What is the loading on each of the anchors if the angle of the "Y" is 90 degrees?
40. A 100kg load is hanging below your "Y hang". What is the loading on each of the anchors if the angle of the "Y" is 0 degrees?
41. If you hung on the end of a 50m low stretch rope approximately how much do you think it would stretch?
42. If you hung on the end of a 50m dynamic rope approximately how much do you think it would stretch?

43. In relation to your body, at what height is it preferable to rig horizontal traverse lines?
44. If retrieving ropes with a “pull through” what should you be particularly aware of?
45. A 100kg load/person is suspended on a vertical rope. If the rope is deviated by 20 degrees what load is placed on the deviation anchor?
46. A 100kg load/person is suspended on a vertical rope. If the rope is deviated by 60 degrees what load is placed on the deviation anchor?

Rigging for Rescue and Hauling

47. If you were hauling a casualty with a 2:1 mechanical advantage and you added a further 3:1 to it what would the mechanical advantage now be?
48. If you were hauling a casualty with a 3:1 mechanical advantage and you added a further 3:1 to it what would the mechanical advantage now be?
49. What is the major disadvantage of using a “locking ascender” type of hauling system?
50. A 100kg load is hanging below your “Y hang”. What is the loading on each of the anchors if the angle of the “Y” is 160 degrees?
51. A 100kg load is hanging below your “Y hang”. What is the loading on each of the anchors if the angle of the “Y” is 140 degrees?

Rope Manoeuvres

52. What should you do if you find a cut in the sheath of your rope as you descend?
53. Which type of deviation rigging method protects the ropes from catastrophic damage?
54. Why are knots that isolate damaged rope a danger if accepted at the workplace?

55. In what rope manoeuvre do you need four points of contact and why?

Climbing techniques

56. What does a “fall factor” measure?

57. What is the formula for working out fall factors?

58. You and your mate fall the same distance with the same fall factor. You are attached by dynamic cow’s tails, but your mate is attached by a tape slings. Who will hurt themselves most and why?

59. What is the highest fall factor you could have?

60. Explain the difference between a Kilogram and Kilonewton?

61. According to the IRATA international code of practice device lanyards need to be able to withstand what?

62. What is the maximum fall, in terms of height fallen and fall factor, that you think is acceptable onto your device lanyard?

Rope rescue

63. What measures must be taken when descending with a casualty?

64. Name two factors that affect the self-breaking function of a descender?

65. How long do you think a “totally inert” technician (without muscular movement) could hang in a harness before medical difficulties occurred?

66. When considering Suspension Intolerance in casualty rescue, after safety considerations what should be the priority?