

Parachute Rigger Knowledge Test Question Bank

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1. A44 RIG
A certificated master parachute rigger who applies for an additional type rating must pass which of the following?
A) A written and practical test for each type rating sought.
B) A practical test for each type rating sought.
C) A written test for each type rating sought.
2. A44 RIG
What is the age requirement for an applicant to be eligible for a parachute rigger certificate?
A) At least 18 years of age.
B) At least 21 years of age.
C) At least 18 years of age for the Senior Parachute Rigger Certificate and at least 21 years of age for the Master Parachute Rigger Certificate.
3. A44 RIG
Which statement is correct in reference to the test requirements for a Senior Parachute Rigger Certificate when the applicant is an eligible military rigger?
A) Pass a written, oral, and practical test.
B) Pass a written and practical test.
C) Pass a written test.
4. A44 RIG
If a certificated master parachute rigger applies for an additional type rating, how many (minimum) parachutes of the type for which he/she seeks a rating must he/she have packed?
A) 20 parachutes.
B) 100 parachutes.
C) 50 parachutes.
5. A01 RIG
What requirements must be met by an eligible member of an Armed Force of the United States who applies for a Senior Parachute Rigger Certificate?
A) Pass an oral and practical test for each rating sought.
B) Pass a written test with respect to Federal Aviation Regulations.
C) Pass a written test, and an oral and practical test for each rating sought.
6. A44 RIG
A certificated parachute rigger who applies for an additional type rating must pass
A) a written and practical test.
B) an oral and practical test.
C) a practical test.
7. A44 RIG
When a certificated senior parachute rigger applies for an additional type rating, how many parachutes must he/she have packed?
A) At least 10 parachutes of each of 2 types in common use.
B) At least 20 parachutes of the type for which a rating is sought.
C) At least 100 parachutes of each of 2 types in common use.
8. A44 RIG
A certificated senior parachute rigger who applies for an additional type rating must take which of the following tests?
A) Written test.
B) Practical test.
C) Written and practical tests.

9. A44 RIG

In addition to other qualifications, which requirement must be met by a member of an Armed Force of the United States who applies for a Master Parachute Rigger Certificate, and is not the holder of a Senior Parachute Rigger Certificate?

- A) Pass a written test and, in addition, pass an oral and practical test on at least two parachutes in common use for each rating sought.
- B) Pass a written, oral, and practical test for each rating sought.
- C) Pass a written test with respect to two types of parachutes in common use.

10. A44 RIG

How many of the following are included in the knowledge requirements for a Senior Parachute Rigger Certificate?

- (1) The sections of FAR Part 65 that relate to parachute rigger certificates.
 - (2) The use of the parachute.
 - (3) The construction, packing, and maintenance of parachutes.
 - (4) The manufacturer's instructions relating to parachutes in common use.
- A) 2.
 - B) 1.
 - C) 3.

11. A44 RIG

Which of the following is not a requirement for issuance of a Senior Parachute Rigger Certificate to an applicant who is a civilian employee (parachute rigger) of an Armed Force of the United States?

- A) Show evidence of having packed satisfactorily at least 20 parachutes of each type for which he/she seeks a rating.
- B) Pass an oral and practical test, to the satisfaction of the FAA Administrator, showing his/her ability to pack and maintain at least one type of parachute in common use.
- C) Present satisfactory documentary evidence that he/she is a civilian employee (parachute rigger) of an Armed Force of the United States.

12. A44 RIG

- (1) The requirements for a Master Parachute Rigger Certificate specify that an applicant shall have had at least 5 years of experience as a certificated senior parachute rigger.
- (2) If not the holder of a Senior Parachute Rigger Certificate, an applicant for a Master Parachute Rigger Certificate must pass a written test.

Regarding the above statements, which of the following is true?

- A) Only No. 1 is true.
- B) Only No. 2 is true.
- C) Both No. 1 and No. 2 are true.

13. A44 RIG

A senior parachute rigger, who had held a back type rating for 6 years, added seat and chest type ratings to the Senior Parachute Rigger Certificate on a given date. One month later, upon meeting the experience requirements for a master rigger, the senior rigger applied, was tested, and was issued a Master Parachute Rigger Certificate.

For what type ratings is the master parachute rigger eligible?

- A) Back, chest, and seat types.
- B) Back type only.
- C) Only the types for which he/she packed at least 100 parachutes and was tested for on the master rigger test.

14. A44 RIG

An applicant for a Master Parachute Rigger Certificate must have packed a minimum number of parachutes either as a senior rigger or under the supervision of which of the following?

- A) Any certificated parachute rigger.
- B) A certificated parachute rigger who holds the appropriate ratings or a person holding an appropriate military rating.
- C) A certificated master parachute rigger who also holds a currently effective parachute instructor's certificate.

15. A44 RIG

Which of the following is an eligibility requirement for a Master Parachute Rigger Certificate?

- A) Be at least 18 years of age.
- B) Be at least 21 years of age.
- C) There is no minimum age requirement.

16. A44 RIG

The FAA action to suspend or revoke a parachute rigger certificate may be based on

- (1) false statements on an application for an airman certificate or rating.
- (2) refusal to inspect, pack, and seal a parachute.

Regarding the above statements, which of the following is true?

- A) Only No. 1 is true.
- B) Only No. 2 is true.
- C) Both No. 1 and No. 2 are true.

17. A44 RIG

How many parachutes must an applicant for a Senior Parachute Rigger Certificate show that he/she has packed?

- A) 100 parachutes of each type for which a rating is sought.
- B) 20 parachutes each of 2 types in common use.
- C) 20 parachutes of each type for which a rating is sought.

18. A44 RIG

Federal Aviation Regulations provide for the issuance of which type ratings for parachute riggers?

- A) Seat, special purpose, back, and lap.
- B) Chest, back, seat, and chair.
- C) Back, lap, seat, and chest.

19. A44 RIG

An applicant for a Senior Parachute Rigger Certificate must have packed a minimum number of parachutes under the supervision of which of the following?

- A) Any certificated parachute rigger.
- B) A person holding a currently effective parachute instructor's certificate.
- C) A certificated and appropriately rated parachute rigger or a person holding an appropriate military rating.

20. A44 RIG

In accordance with FAR Part 65, which statement shown below is an eligibility requirement for a Senior Parachute Rigger Certificate?

- A) Must be able to read, write, speak, and understand the English language.
- B) Must be eligible for at least a Third-Class Medical Certificate.
- C) Must have packed at least 100 parachutes.

21. A44 RIG

In addition to other qualifications, an applicant for a Master Parachute Rigger Certificate shall show evidence of having packed satisfactorily a minimum of

- A) 100 parachutes of each of 2 types in common use.
- B) 20 parachutes of each type for which a rating is desired.
- C) 100 FAA-approved parachutes within the preceding 12 calendar months.

22. A44 RIG

How many years experience (minimum) as a parachute rigger are required for an applicant to be eligible for a Master Parachute Rigger Certificate?

- A) 2 years.
- B) 3 years.
- C) 5 years.

23. A44 RIG

What is the minimum period of time an applicant for a Senior Parachute Rigger Certificate shall have served as a parachute rigger?

- A) There is no minimum time period specified.
- B) For at least 90 days within the preceding 12 months.
- C) 2 years.

24. A44 RIG

Which statement is correct in reference to the skill requirements for a Senior Parachute Rigger Certificate?

- A) An applicant must demonstrate the ability to pack and maintain at least one type of parachute in common use.
- B) An applicant must demonstrate the ability to pack and maintain at least two types of parachutes in common use.
- C) An applicant who has a record of packing at least 20 parachutes of the type for which a rating is sought meets the skill requirements and is not required to take an oral and practical test.

25. A44 RIG

Which of the following is privileged to perform alterations to the auxiliary canopy of a single harness dual parachute pack to be used for intentional jumping?

- A) The owner of the parachute.
- B) A certificated and appropriately rated master parachute rigger.
- C) A certificated and appropriately rated senior parachute rigger.

26. A44 RIG

A parachute rigger is required to present his/her certificate for inspection upon the request of

- A) the owner of a parachute the rigger has packed.
- B) any Federal, state, or local law enforcement officer.
- C) a certificated pilot or flight instructor.

27. A44 RIG

Who may pack the main parachute of a dual parachute pack to be used for intentional jumping?

- A) An appropriately rated parachute rigger or the person who is to use the parachute.
- B) Any person associated with use of the parachute for intentional jumping.
- C) Only a certificated and appropriately rated parachute rigger.

28. A44 RIG

- (1) A senior parachute rigger may make minor harness repairs for the types of parachutes for which he/she is rated.
- (2) A senior parachute rigger may alter the length of the bridle line that attaches the pilot chute to the canopy.

Regarding the above statements, which of the following is true?

- A) Only No. 1 is true.
- B) Only No. 2 is true.
- C) Both No. 1 and No. 2 are true.

29. A44 RIG

Who may supervise other individuals in the proper methods and procedures of packing, maintaining, and altering parachutes?

- A) A certificated master parachute rigger who holds the appropriate ratings.
- B) A certificated senior parachute rigger who also holds a currently valid parachute instructor's certificate.
- C) A certificated senior parachute rigger, but only for the types of parachutes for which he/she is rated.

30. A44 RIG
Which of the following states the privileges of a Senior Parachute Rigger Certificate?
A) Maintain, pack, inspect, and perform alterations on any type of parachute for which he/she is rated.
B) Maintain, pack, inspect, and perform major and minor repairs on any type of parachute for which he/she is rated, and instruct other individuals to perform the same operations.
C) Pack and maintain (except for major repair) any type of parachute for which he/she is rated.

31. A44 RIG
Who may pack, maintain, and alter a back-type parachute intended for emergency use in connection with civil aircraft?
A) A master parachute rigger or the parachute owner.
B) A certificated and appropriately rated senior parachute rigger.
C) A certificated and appropriately rated master parachute rigger.

32. A44 RIG
According to FAR Part 65, which statement is an acceptable performance standard for senior parachute riggers?
A) Pack and alter any parachute if within the rigger's rating.
B) Perform duties under his/her certificate for at least 90 days within the preceding 12 months.
C) Maintain packing records for a minimum of 1 year.

33. A44 RIG
What are the privileges of a certificated senior parachute rigger, in addition to supervising other persons in packing any type of parachute for which he/she is rated?
A) May pack or maintain (except for major repair) any type of parachute for which he/she is rated.
B) May pack or maintain (except for major repairs) and perform alterations on any type of parachute for which he/she is rated.
C) May pack, maintain, inspect, and perform major and minor repairs on any type of parachute for which he/she is rated, and instruct others in performing these operations.

34. A44 RIG
Which of the following may pack, maintain, and alter a chest-type parachute intended for emergency use in connection with civil aircraft?
A) A certificated and appropriately rated master parachute rigger.
B) A certificated and appropriately rated senior parachute rigger.
C) The owner of the parachute.

35. A44 RIG
Select the correct statement regarding the privileges of a certificated parachute rigger.
A) When packing the main parachute of a single harness dual parachute pack to be used for intentional jumping, all packing operations shall be conducted in a certificated parachute facility rated for packing and general maintenance.
B) There are no regulatory requirements that must be followed when packing the auxiliary parachute of a single harness dual parachute pack to be used for intentional jumping.
C) When packing the main parachute of a single harness dual parachute pack to be used for intentional jumping, a certificated parachute rigger is not required to keep a record of the packing or to seal the pack.

36. A13 RIG
An Airworthiness Directive is issued for a product when
A) an unsafe condition exists in a product and likely exists in products of the same design.
B) the manufacturer determines that packing and service instructions are inadequate.
C) it has been determined that a product failure caused a fatality.

37. A13 RIG
A certificated parachute rigger may not pack and seal a parachute to which an Airworthiness Directive applies unless
A) the conditions stated in the Airworthiness Directive allow further operation.
B) a master rigger approves all deviations to conditions in the Airworthiness Directive.
C) the unit is a reserve parachute.
38. A44 RIG
Many modern high-speed aircraft are equipped with drag chutes which are deployed upon landing to slow the aircraft. Which of the following may pack, rig, and approve for return to service this type parachute?
A) A certificated mechanic with an airframe rating.
B) The pilot or owner of the aircraft.
C) A master parachute rigger.
39. P37 RIG
Regulations require an authorized person who performs alterations to parachutes to keep a record of certain alterations. Which of the following must be recorded?
Altering the
1. main parachute of a single harness dual parachute pack.
2. harness of a single harness dual parachute pack.
3. auxiliary parachute of a single harness dual parachute pack.
4. auxiliary parachute container of a single harness dual parachute pack.
5. main parachute container of a single harness dual parachute pack.
A) 1, 2, 3.
B) 2, 3, 4.
C) 3, 4, 5.
40. A44 RIG
Which of the following is a requirement a parachute rigger must meet in order to exercise the privileges of his/her certificate?
A) Performed duties under his/her certificate within the preceding 90 days.
B) Packed at least 20 parachutes within the preceding 90 days.
C) Has demonstrated to the FAA Administrator that he/she is able to perform those duties.
41. P37 RIG
Who may install Capewell fasteners (for a main back pack) on a single harness dual parachute pack?
A) Master parachute rigger.
B) Military rated parachute rigger.
C) Person using the parachute for intentional jumping.
42. P37 RIG
Which of the following repairs may be made by a senior parachute rigger?
A) Replace a damaged ripcord housing with a factory unit.
B) Sew a lift web to the links.
C) Sew a tear that has crossed a radial seam.
43. A100 RIG
Data necessary for the issuance of an Airworthiness Directive shall be submitted by
A) the FAA Engineering and Manufacturing Branch.
B) the parachute manufacturer.
C) senior and master parachute riggers.
44. A44 RIG
In relation to a dual parachute pack used for intentional jumping, which of the following may be accomplished by the person who intends to use the parachute?
A) Packing the main parachute.
B) Packing, maintaining, or altering the main parachute.
C) Packing the main parachute or the auxiliary parachute.

45. L90 RIG

Which of the following Federal Aviation Regulations should the parachute rigger be knowledgeable of?

- A) FAR Parts 63 and 145.
- B) FAR Parts 65 and 105.**
- C) FAR Parts 63 and 147.

46. L90 RIG

From the list below, identify the repairs that cannot be approved by a senior parachute rigger.

1. Place suspension lines in proper sequence on a removable connector link.
2. Replace a damaged suspension line.
3. Replace a canopy panel.
4. Replace pack opening bands.
5. Replace D-rings on the parachute harness.
6. Replace pack cones or grommets.

- A) 1, 3, 6.
- B) 2, 3, 5.**
- C) 4, 5, 6.

47. C01 RIG

What Federal Aviation Regulation prescribes rules for intentional parachute jumping?

- A) FAR Part 65.
- B) FAR Part 91.
- C) FAR Part 105.**

48. A44 RIG

(1) After packing a parachute intended for emergency use, a certificated parachute rigger is required to seal each pack in accordance with the manufacturer's recommendations for that type of parachute.

(2) The identifying mark (seal symbol) used to seal a pack is issued by the manufacturer of the specific parachute.

Regarding the above statements, which of the following is true?

- A) Only No. 1 is true.**
- B) Only No. 2 is true.
- C) Both No. 1 and No. 2 are true.

49. A44 RIG

You have received your Senior Parachute Rigger Certificate within the last 30 days. If you are

requested to pack a parachute under the privileges of your certificate, and you hold the proper rating, A) you may pack the parachute because you have performed duties under your certificate for 30 days within the previous 12 months.

B) you may pack the parachute because you have shown the FAA Administrator you are able to perform those duties.

C) you may not pack the parachute.

50. A44 RIG

The packing, maintaining, or altering of a parachute must be performed following the procedures

- A) prescribed in FAR Part 65.
- B) approved by the FAA Administrator or the parachute manufacturer.**
- C) contained in TSO-C23b.

51. A44 RIG

Which of the following statements is true concerning the minimum facilities and equipment required for a parachute rigger to pack the main parachute of a single harness dual parachute pack to be used for intentional jumping?

- A) The facilities and equipment requirements of the FAR's do not apply in this instance.**
- B) The packing must be done in a parachute facility rated for general maintenance, minor repair, canopy overhaul.
- C) The packing may be done outside a properly equipped facility only by an appropriately rated master parachute rigger.

52. A44 RIG
Who may pack the main parachute of a single harness dual parachute pack to be used for intentional jumping?
A) Only an appropriately certificated and type-rated parachute rigger.
B) Any person associated with use of the parachute for intentional jumping.
C) Any certificated parachute rigger or the person who is to use the parachute.
53. A44 RIG
Which of the following may pack, maintain, or alter the harness, auxiliary parachute, or auxiliary parachute container of a single harness dual parachute pack to be used for intentional jumping?
A) An appropriately certificated and type-rated parachute rigger.
B) Any certificated parachute rigger or the person who is to use the parachute.
C) Any person associated with use of the parachute for intentional jumping.
54. A44 RIG
Which statement applies regarding the packing of the main parachute of a dual parachute pack when the parachute is to be used for intentional jumping?
A) The facilities and equipment, performance standards, records, and seal attachment requirements of FAR Part 65 do not apply in this situation.
B) The parachute rigger must have performed duties under his/her certificate for at least 90 days within the preceding 12 months.
C) The parachute rigger shall maintain a record of each parachute packed for at least 2 years.
55. A44 RIG
Who may maintain or alter the main parachute of a single harness dual parachute pack to be used for intentional jumping?
A) The person who is to use the parachute.
B) An appropriately certificated parachute rigger.
C) The owner of the parachute.
56. A44 RIG
Which of the following may alter the auxiliary parachute of a single harness dual parachute pack?
A) The owner of the parachute.
B) A certificated master parachute rigger.
C) The person who intends to use the parachute.
57. A44 RIG
How many of the following may alter the auxiliary parachute of a single harness dual parachute pack?
(1) The owner of the parachute.
(2) The person who is to use the parachute.
(3) A certificated senior parachute rigger.
A) None.
B) One.
C) Two.
58. A44 RIG
(1) A senior parachute rigger may alter the length of the bridle line that attaches the pilot chute to the apex of the canopy.
(2) Worn or damaged harness webbing may be replaced by a senior parachute rigger if the necessary equipment is available.
Regarding the above statements, which of the following is true?
A) Only No. 1 is true.
B) Only No. 2 is true.
C) Neither No. 1 nor No. 2 is true.

59. A44 RIG

If requested to pack a parachute intended for emergency use, in a manner other than the manufacturer's approved method, what should a certificated rigger do?

- A) Pack the parachute in the manner requested and drop test it to determine if the rate of opening is acceptable.
- B) Request the local FAA inspector to approve the deviations from the manufacturer's approved method.
- C) Refuse to pack the parachute in the manner requested.

60. A44 RIG

What facilities and equipment are required for a certificated parachute rigger to pack the main parachute of a dual parachute pack to be used by him/her for intentional jumping?

- A) Facilities for airing and drying.
- B) Adequate housing facilities to perform his/her duties.
- C) None.

61. A44 RIG

What is the lead seal identifying mark used for?

- A) To seal a parachute pack.
- B) To show if the pack has been opened.
- C) To identify a certificated parachute rigger.

62. A44 RIG

Federal Aviation Regulations require a parachute rigger to keep a record of the packing, maintenance, and alteration performed or supervised by him/her. Identify the items required to be entered in the record.

1. Retirement date of parachute.
 2. Date parachute was manufactured.
 3. Name and address of parachute owner.
 4. Type, make, and serial number of the parachute.
 5. Date when and place where the work was performed.
- A) 1, 2, 3.
 - B) 2, 3, 4.
 - C) 3, 4, 5.

63. A44 RIG

According to FAR Part 65, when exercising certificate privileges, a parachute rigger must have available suitable housing that is adequately heated, lighted, and ventilated

- A) and is high enough to allow a parachute to be hung vertically for drying and airing.
- B) and has provisions for adjusting and controlling the humidity.
- C) for drying and airing parachutes.

64. A44 RIG

A certificated parachute rigger shall not exercise the privilege of his/her certificate and type ratings unless he/she understands the current manufacturer's instructions for the operation involved and

- A) has satisfactorily packed not less than 20 parachutes within the preceding 90 days.
- B) has performed duties under his/her certificate for at least 90 days within the preceding 12 months.
- C) has performed duties under his/her certificate within the preceding 90 days.

65. A44 RIG

During the inspection of a parachute intended for emergency use, a certificated senior parachute rigger finds a canopy section which shows evidence of weakness or damage. What procedure should be followed?

- A) Contact the local FAA inspector for disposition instructions.
- B) Refuse to pack the parachute in that condition.
- C) Pack the parachute; however, a rejection tag should be placed in the record pocket.

66. A44 RIG

In the exercise of your privileges as a certificated parachute rigger, you may be requested to present your certificate for inspection. Regulations do not require you to comply with such a request from which of the following?

- A) The FAA Administrator or an authorized representative of the National Transportation Safety Board.
- B) Any state or local law enforcement officer.
- C) A certificated flight instructor.

67. A44 RIG

When packing the main parachute of a dual parachute pack to be used for intentional jumping, a certificated parachute rigger

- A) must have performed duties under his/her certificate for at least 90 days within the preceding 12 months.
- B) shall keep a record of each parachute packed for at least 2 years.
- C) need not comply with the facilities, equipment, performance standards, records, and seal requirements of FAR Part 65.

68. A44 RIG

A person who is authorized to perform alterations to parachutes must record which of the following alterations to a single harness dual parachute pack?

- 1. The main parachute.
 - 2. The harness.
 - 3. The auxiliary parachute.
 - 4. The auxiliary parachute container.
 - 5. The main parachute container.
- A) 1, 2, 3.
 - B) 2, 3, 4.
 - C) 3, 4, 5.

69. A44 RIG

When required each parachute rigger shall keep a record of packing, maintenance, and alterations performed or supervised. From the following, identify that which is not a required part of the record:

- A) The date when and the place where the work was performed.
- B) The parachute rigger's seal symbol.
- C) The type, make, and serial number of the parachute.

70. A44 RIG

An authorized person who performs alterations to one of the following is not required by regulation to keep a record of the alterations.

- A) The main parachute of a single harness dual parachute pack.
- B) The harness of a single harness dual parachute pack.
- C) The auxiliary parachute of a single harness dual parachute pack

71. A44 RIG

If a parachute rigger has not performed duties under his/her certificate within the last 12 months, he/she must

- A) review the manufacturer's instructions prior to packing a parachute for use.
- B) pack a parachute of the appropriate type under the supervision of a master parachute rigger before exercising the privileges of his/her certificate.
- C) show the FAA Administrator that he/she is able to satisfactorily perform the duties for which he/she is rated.

72. A44 RIG

After packing a parachute, a rigger shall enter which of the following on the packing record attached to the parachute?

- A) The date, the rigger's certificate number, and his/her seal symbol.
- B) The rigger's certificate number and signature, the date and place of packing, and a notation of any defects found upon inspection.
- C) The rigger's signature, the date, and the place of packing.

73. A44 RIG
How long must a parachute rigger retain a record of parachute packing, maintenance, and alterations?
A) For at least 2 years after the disposal of the parachute.
B) For at least 2 years after the date of record.
C) For at least 1 year after completion of the work.

74. P37 RIG
Which of the following repairs can be approved by a certificated senior parachute rigger?
1. Replacing a grommet.
2. Cleaning a stained harness.
3. Replacing suspension lines.
4. Arranging suspension lines in proper sequence on a separable link.
5. Repairing a lateral band.
6. Replacing an apex cap.
A) 2, 3, 5.
B) 1, 2, 4.
C) 5, 4, 6.

75. P59 RIG
What do the Federal Aviation Regulations consider to be the service life of a parachute?
A) As long as it is in condition for safe operation.
B) 5 years.
C) 7 years.

76. P37 RIG
(1) If a drop test is required to determine the serviceability of a canopy, a certificated senior parachute rigger may perform the drop test.
(2) A senior parachute rigger may replace pack opening elastic or spring bands.
Regarding the above statements, which of the following is true?
A) Only No. 1 is true.
B) Only No. 2 is true.
C) Both No. 1 and No. 2 are true.

77. L90 RIG
(1) Worn or damaged harness webbing may be replaced by a certificated senior parachute rigger, providing the necessary equipment is available.
(2) The replacement of a damaged suspension line is a minor repair.
Regarding the above statements, which of the following is true?
A) Only No. 1 is true.
B) Only No. 2 is true.
C) Neither No. 1 nor No. 2 is true.

78. L90 RIG
(1) The replacement of a damaged suspension line is a minor repair.
(2) A senior parachute rigger may make minor repairs to harnesses for the type of parachutes for which he/she is rated.
Regarding the above statements, which of the following is true?
A) Only No. 1 is true.
B) Only No. 2 is true.
C) Both No. 1 and No. 2 are true.

79. L90 RIG

- (1) The replacement of a damaged suspension line is a major repair.
- (2) A master parachute rigger may make major repairs to harnesses for the type of parachutes for which he/she is rated.

Regarding the above statements, which of the following is true?

- A) Only No. 1 is true.
- B) Only No. 2 is true.
- C) Both No. 1 and No. 2 are true.

80. L90 RIG

If a tear continued across a radial seam of an auxiliary pack canopy, who is authorized to make the repair?

- A) A master parachute rigger.
- B) A senior parachute rigger with an appropriate rating.
- C) The user of the parachute.

81. L90 RIG

During the assembly of approved parachute components, if a conflict arises between the canopy manufacturer's instruction's and the container manufacturer's instructions how should the rigger proceed? Precedence should be given to the

- A) intended use of the assemble.
- B) canopy manufacturer's instructions.
- C) container manufacturer's instructions.

82. P37 RIG

- (1) Worn or damaged harness webbing may be replaced by a certificated senior parachute rigger, providing he/she has the necessary equipment.
- (2) The replacement of a damaged suspension line is classified as a major repair.

Regarding the above statements, which of the following is true?

- A) Only No. 1 is true.
- B) Only No. 2 is true.
- C) Both No. 1 and No. 2 are true.

83. L90 RIG

Identify those persons who may alter the main parachute of a single harness dual parachute pack.

1. The manufacturer.
 2. The owner of the parachute.
 3. A senior parachute rigger.
 4. A master parachute rigger.
 5. A person holding an appropriate military rating.
 6. Any other manufacturer that the Administrator considers to be competent.
- A) 1, 2, 3.
 - B) 2, 4, 5.
 - C) 1, 4, 6.

84. P37 RIG

- (1) When sealing a pack, the lead seal should be positioned over the safety-tie threads and securely compressed.
- (2) Manufacturers' instructions require the replacement of all harness tacking each time a parachute is packed.

Regarding the above statements, which of the following is true?

- A) Only No. 1 is true.
- B) Only No. 2 is true.
- C) Both No. 1 and No. 2 are true.

85. P37 RIG
After inserting the ripcord pins in the locking cones on a back-type parachute, the pack is sealed in accordance with the manufacturer's instructions using low tensile strength thread to tie the
A) top pin.
B) center pin.
C) last pin.
86. P39 RIG
When packing a parachute with harness attached, you find the canopy, suspension lines, and harness twisted and tangled. Which of the following should be accomplished first?
A) Determine that the canopy is right side out.
B) Remove the twists and tangles in the suspension lines nearest the canopy.
C) Remove the twists and tangles in the suspension lines nearest the harness.
87. P39 RIG
What action should be taken prior to opening a parachute pack that has been presented for repacking?
A) Perform a compressed pack test.
B) Inspect the exterior of the pack for signs of stains and wear points.
C) Have the parachute drop-tested to determine if the canopy material meets the strength requirements of TSO-C23b.
88. P39 RIG
When laying out a seat or back-type parachute for packing, how should the harness be placed with reference to body position of the wearer?
A) Face up with the head toward the canopy.
B) Face up with the head away from the canopy.
C) Face down with the head toward the canopy.
89. P39 RIG
The first step in preparing a parachute for packing is to lay the parachute full length on a packing table and
A) hook to tension devices and add mild tension.
B) replace the ripcord handle in its pocket.
C) untie the suspension lines.
90. P39 RIG
In preparation for packing a parachute, the apex must be checked to ensure that it is
A) open.
B) closed.
C) straight.
91. P39 RIG
When packing a parachute, you find the suspension lines twisted and tangled. Which of the following should be accomplished first?
A) Remove the twists and tangles beginning with the apex and working down to the harness.
B) Remove the twists and tangles from the lines nearest the harness.
C) Follow the suspension lines from connector link to connector link.
92. P39 RIG
In the process of packing a parachute, the apex is generally released from the table prior to which of the following operations?
A) Pleating the gores.
B) Accordion-folding the canopy.
C) Straightening the top lateral band.

93. P39 RIG
Which group of suspension lines is connected to the inboard end of the riser connector links (28-foot canopy)?
A) Lines 1, 14, 15, and 28.
B) Lines 1, 6, 12, and 28.
C) Lines 1, 7, 13, and 20.
94. P39 RIG
The stowage location for the first bight of suspension lines is determined by
A) TSO-C23b.
B) length of risers.
C) packing instructions.
95. P39 RIG
To facilitate suspension line pullout, the lines should be stowed so that they extend through the retainer loop
A) only to the edge of loop.
B) not more than 1/2 inch.
C) according to manufacturer's instructions.
96. P39 RIG
After a parachute has been stretched to its full length on the packing table, the next step in the packing procedure is to
A) remove the twists from the harness and suspension lines.
B) attach the connector links to the tension hooks.
C) assure that canopy is right side out.
97. P39 RIG
Which of the following checks cannot be made after the parachute has been packed and sealed?
A) Condition of vent collar.
B) Condition of safety thread on ripcord locking pin.
C) Security of ripcord housing.
98. P39 RIG
When packing a parachute, what determines the width of the canopy folds?
A) The width of the suspension line channels.
B) The diameter of the canopy.
C) The width of the pack or deployment bag.
99. P37 RIG
How is a back-type parachute pack sealed?
A) By tying the pin farthest from the grip, with low tensile strength thread, and attaching a lead seal.
B) By tying the top and bottom pins with low tensile strength thread, and attaching a lead seal.
C) By tying the pin nearest the grip with low tensile strength thread, and attaching a lead seal.
100. P39 RIG
A shot bag is placed over the suspension lines during the gore-folding process in order to
A) give tension on the apex.
B) hold the canopy folds in position.
C) keep the lines in their holders.
101. A44 RIG
Which of the following is NOT a purpose of the seal and safety tie?
A) Hold the pins in place.
B) For the protection of the rigger.
C) For the protection of the user.

102. P39 RIG
When packing a parachute, after the right and left-hand gores have been properly folded, both groups of gores should be folded once
A) over the center of the canopy.
B) toward the upper lateral band.
C) toward the lower lateral band.
103. P39 RIG
When preparing a 28-foot chest canopy for folding, after the suspension lines have been equally divided between the left and right sides, where will the gore which contains the manufacturer's data be located if the canopy is laid out properly?
A) On the top between suspension lines 7 and 8.
B) On the bottom between suspension lines 13 and 14.
C) On the top between suspension lines 1 and 28.
104. P39 RIG
Select the tool used to make the folds in the canopy and to smooth out the pack.
A) Tension hooks.
B) Packing paddles.
C) Fids.
105. P39 RIG
If both right and left groups of gores have been folded properly, how many gores cross the suspension lines?
A) None.
B) Two.
C) Four.
106. P39 RIG
Select the drawing from Figure 5 that shows the correct rotation of the suspension lines on the connector links of a 24-foot, four-link canopy.
A) 1.
B) 2.
C) 3.
107. A44 RIG
After inserting the ripcord pins in a back-type parachute, the pack is sealed
A) by tying all of the pins with low tensile strength thread.
B) by tying the top pin with low tensile strength thread.
C) in accordance with the manufacturer's packing instructions.
108. P33 RIG
What is used to hold the canopy and suspension lines in place during packing?
A) Shot bags.
B) Tension hooks.
C) Fids.
109. P33 RIG
A suspension line hook is used to
A) lift web connector to suspension lines.
B) stow suspension lines.
C) push the suspension lines into container.
110. C03 RIG
A nylon back-type parachute intended for emergency use should be completely inspected and repacked at the end of
A) 60 days.
B) 90 days.
C) 120 days.

111. A44 RIG

After packing a parachute, how does a certificated parachute rigger seal each pack?

A) The safety tie is sealed with the rigger's individual seal in accordance with the manufacturer's recommendations.

B) The pin farthest from the ripcord handle is tied with high visibility red cotton safety thread (Mil-T-5668) in accordance with the manufacturer's recommendations.

C) The safety tie is sealed with the seal symbol issued by the parachute manufacturer.

112. A44 RIG

Inspection of a parachute reveals a canopy section which shows evidence of weakness or damage.

The parachute rigger conducting the inspection shall

A) pack the parachute in the normal manner, but place a rejection tag in a conspicuous location on the pack.

B) contact the local FAA inspector for disposition instructions.

C) refuse to pack the parachute.

113. A44 RIG

(1) After packing a parachute intended for emergency use, a rigger is required to seal the pack.

(2) The identifying mark used to seal a pack is issued by the parachute manufacturer.

Regarding the above statements, which of the following is true?

A) Only No. 1 is true.

B) Only No. 2 is true.

C) Both No. 1 and No. 2 are true.

114. A44 RIG

If you receive a parachute for packing and find it is not airworthy, what steps should be taken?

A) Pack the parachute, place a 6-inch red 'X' on the container, and notify the owner.

B) Notify local FAA officials and dispose of the parachute as advised.

C) Do not pack the parachute.

115. P33 RIG

After closing the pack, the ripcord is inserted and the ends of the pack are dressed out by

A) hand.

B) a packing paddle.

C) a packing hook.

116. P58 RIG

When packing a ram-air canopy, if the leading edge of the canopy is folded inward and rolled tightly to the second line, how will the canopy perform?

A) It will inflate faster.

B) It will open softer.

C) It is less likely to snivel.

117. P58 RIG

Which could alleviate a hard opening ram-air canopy?

A) Roll packing the canopy.

B) Installing a smaller slider.

C) Packing the canopy with a split nose.

118. P40 RIG

A suspension line twist is an entanglement in which the lines are

A) around the canopy.

B) through the harness.

C) twisted due to the rotation of the suspended load.

119. P39 RIG
Ram-air or square parachute canopies are easily inspected
A) when laid out on a packing table.
B) when suspended by trailing edge.
C) with the lines attached to the ceiling and trailing edge anchored to a sliding table.
120. P59 RIG
When packing a ram-air parachute if the lines are not properly straightened, what malfunction could occur?
A) Locked bag.
B) End cell closure.
C) Line - over.
121. A44 RIG
How long should a parachute be aired prior to packing?
A) 4 hours, provided the parachute is not damp or wet.
B) At least 8 hours.
C) Until the parachute is thoroughly dry.
122. P33 RIG
After hanging a parachute in a loft, you find the suspension lines will not clear the floor. What is the recommended procedure to follow?
A) Lay excess length of lines on a table.
B) Chain the lines.
C) Leave the excess length of lines in the retainer loops.
123. P36 RIG
Which operation should be performed first when fitting a parachute harness to the wearer?
A) Position the sling under the buttocks to form a seat.
B) Adjust the back straps.
C) Place the chest strap approximately 4 inches below the chin and adjust the shoulder adapters.
124. Y60 RIG
Before installation on a parachute assembly, a ripcord must withstand a minimum load of at least
A) 300 pounds.
B) 22 pounds.
C) 150 pounds.
125. Y60 RIG
The pull required to cause the positive and quick operation of the pack opening device shall not exceed
A) 12 pounds.
B) 18 pounds.
C) 22 pounds.
126. P37 RIG
What is the purpose of naphthalene flakes when used in storage areas?
A) Provide rodent protection.
B) Provide mildew protection.
C) Help maintain proper humidity conditions.
127. P38 RIG
What happens to the pilot chute of a square main canopy that has fully opened?
A) It remains inflated.
B) It trails behind the main canopy.
C) It drops through the vent and hangs inside the canopy.

128. P59 RIG

Ram-air canopies of what aspect ratio receive the greatest benefit from stabilizer panels?

- A) Low.
- B) Medium.
- C) High.

129. P37 RIG

Which of the following would be a satisfactory method of storing a nylon parachute for an extended period of time (6 months)?

- A) The parachute should be aired, packed, and stored in a parachute-carrying bag.
- B) The parachute should be stored in a packed condition in a sealed cellophane bag.
- C) The parachute should be stored in an unpacked condition in a dry place and protected from the Sun's rays.

130. P38 RIG

A ram-air canopy

(1) has an upper surface, airfoil shaped ribs, and a rectangular platform.

(2) having a high aspect ratio, has a short cord and a long span.

Regarding the above statements, which of the following is true?

- A) Only No. 1 is true.
- B) Only No. 2 is true.
- C) Both No. 1 and No. 2 are true.

131. P36 RIG

What are the principal functions of the ripcord housing?

- A) Hold the pack cover and pilot chute flap in place.
- B) Protect the ripcord cable from accidental release.
- C) Make the ripcord easier to pull and hold it in position after pack opening.

132. P58 RIG

The purpose of stabilizer panels in a square parachute is to

- A) stabilize canopy surge during deployment.
- B) reduce initial deployment by reefing the canopy.
- C) reduce wing tip vortices.

133. P36 RIG

How far must the ripcord pins normally be pulled to unlock the pack?

- A) 1/2 inch.
- B) 1-1/4 inches.
- C) 2 inches.

134. P57 RIG

Crossports are usually located between A-B and B-C line attachment points, this area provides

- A) delayed onset of stall.
- B) the least strength degradation.
- C) the best air flow through the canopy.

135. P38 RIG

Why should the elasticity of a seam or stitching be slightly greater than that of the fabric it joins?

- A) To minimize abrasion and wear of the thread from contact with other parts of the parachute assembly.
- B) So that the material will support its share of the expected load.
- C) To assure balanced seam construction that has the neatness in appearance to match adjacent seams.

136. P38 RIG
The amount of time required for a round canopy to fill with air is not affected by which of the following factors?
A) Bias construction of the canopy.
B) Vent size and arrangement.
C) Distribution of porosity.
137. P37 RIG
A common term used in rigging parachutes is 'chaining', which denotes the
A) method of temporarily gathering the suspension lines for convenience in handling.
B) weighting of the skirt hem when hanging a canopy for drying.
C) method of closing some packs.
138. P39 RIG
How can sunlight damage to white nylon canopy fabric be identified?
A) Moisten an area with distilled water and test using blue litmus paper.
B) When viewed under an ultraviolet light, the fabric will have a white fluorescence.
C) Moisten an area with distilled water and test using red litmus paper.
139. P40 RIG
A line-over is the term used when one or more suspension lines
A) cross on the raisers.
B) are twisted.
C) pass over the inflated canopy.
140. P37 RIG
Suspension line breakage in ram-air canopies most often occurs at what line position?
A) The leading edge outboard.
B) The trailing edge mid-canopy.
C) The leading edge center line.
141. P39 RIG
How can you detect the presence of acid on parachute fabrics?
A) By sight.
B) By the use of litmus paper.
C) By drop testing the parachute.
142. P38 RIG
When trimming a ram-air canopy, what flight characteristic is enhanced by pitching the nose down?
A) Glide.
B) Stability.
C) Rate of turn.
143. P40 RIG
When one or more of the suspension lines pass over the top of the canopy during deployment, it is referred to as
A) a streamer.
B) a line over.
C) a partial inversion.
144. P37 RIG
Ram-air or square parachute steering line damage is usually caused by friction
(1) in slider grommets and guide rings.
(2) during deployment and packing.
Regarding the above statements, which of the following is true?
A) Only No. 1 is true.
B) Only No. 2 is true.
C) Both No. 1 and No. 2 are true.

145. P37 RIG
Stabilizer panel burns on a square or ram-air parachute are usually the result of
A) extended storage in an unventilated area.
B) poor packing.
C) improper attachment during manufacture.
146. P38 RIG
The leading edge of a square parachute is open in order to
A) reduce surge on opening.
B) maintain directional control.
C) maintain the shape of the canopy.
147. P40 RIG
A deployment bag is used
A) to protect the canopy after canopy deployment.
B) to delay canopy filling until suspension lines are deployed.
C) to allow the canopy to fill before the suspension lines are deployed.
148. P38 RIG
What is meant by the phrase 'opening shock'?
A) The force exerted on the pilot chute when it ejects from the pack.
B) The force applied as the suspension lines pay out of their retainers.
C) The force exerted on the jumper when the canopy inflates.
149. P37 RIG
Which of the following chemicals should be used to prevent a parachute from mildewing while in storage?
A) Ammonia.
B) Naphthalene.
C) Methylene Chloride.
150. P54 RIG
What component of a ram-air canopy assembly induces the greatest amount of parasitic drag?
A) Canopy skin.
B) Suspension lines.
C) Leading edge openings.
151. P57 RIG
Which of the following would NOT induce a persistent turn in a ram-air canopy?
A) improper packing.
B) replacing a line of improper length.
C) a short steering line.
152. P37 RIG
A crossport tear in a ram-air or square parachute may
A) cause complete failure if not repaired.
B) put a turn in the canopy.
C) result in total inability to control during descent.
153. P36 RIG
What is the purpose of the pack-opening bands?
A) To pull the container flaps apart.
B) To aid ripcord deployment.
C) When packed, holds the pilot chute in place.

154. P38 RIG
What is the reason for leaving slack in the fabric between attachment points of suspension lines on a block constructed canopy?
A) Increases the canopy maximum opening velocity.
B) Reduces strain on canopy during opening shock.
C) Reduces canopy fill time and increase total volume.

155. P38 RIG
Which of the following statements most accurately describes the radial seam used in a bias-constructed canopy?
A) The seam has two rows of stitching on each side of the channel that encloses the suspension line.
B) The seam has a single row of stitching on each side of the channel that encloses the suspension line.
C) The seam is sewed with a single row of zigzag stitching.

156. P38 RIG
What type knot is generally used to fasten the pilot chute to the bridle line?
A) Half-hitch.
B) Bowline.
C) Clove hitch.

157. P38 RIG
The free ends of the nylon cord used for tacking the lift web in Figure 1 are secured by a
A) half-hitch and a square knot.
B) clove hitch and a surgeon's knot.
C) surgeon's knot and a single overhand lock knot.

158. P38 RIG
Which of the seams illustrated in Figure 12 is an English fell seam? (Cross section shown.)
A) 1.
B) 2.
C) 3.

159. P38 RIG
Figure 14 is a cross section of a series of machine sewn stitches. The type of stitch is
A) a zigzag stitch.
B) a lock stitch.
C) a chain stitch.

160. P38 RIG
'Porosity,' as used in parachute terminology, is expressed in terms of the
A) rate of airflow through the canopy.
B) rate of descent.
C) weight of cloth per square yard.

161. P38 RIG
What is one advantage of bias construction of parachute canopies?
A) Lessens the weight of the parachute.
B) Decreases the bulk of the parachute.
C) Provides additional strength.

162. P38 RIG
Which of the stitching in Figure 3 illustrates a correctly folded and stitched seam? (Shown in cross section.)
A) 1.
B) 2.
C) 3.

163. P38 RIG
Traditionally in square parachutes, the warp yarns run
A) spanwise.
B) chordwise.
C) on the bias.

164. P38 RIG
Select the statement which correctly refers to the assembly of the suspension lines and canopy (standard-type parachute).
A) The suspension lines are enclosed in channels which are produced by the diagonal seam stitching.
B) The suspension lines are enclosed in channels which are produced by the radial seam stitching, and the entire length of each line is lock stitched to the canopy.
C) The suspension lines are enclosed in channels which are produced by the radial seam stitching.

165. P38 RIG
Why is zigzag stitching used to complete the attachment of suspension lines to the riser links?
A) It is stronger than other types of stitching.
B) It allows for more stitches per linear inch than other types of stitching.
C) It allows elongation of the suspension line without over stressing the thread.

166. P38 RIG
Hand tacking should be tied off with what kind of knot?
A) A bowline knot.
B) A surgeon's knot and a locking knot.
C) A square knot and a bowline knot.

167. P38 RIG
What two types of stitching are normally used in the manufacture and maintenance of parachutes?
A) Chain stitch and hand stitch.
B) Chain stitch and blind stitch.
C) Lock stitch and hand stitch.

168. P38 RIG
Which of the following has the least effect on the overall strength of a sewn seam?
A) Stitching pattern and number of stitches.
B) Type of seam used and seam construction.
C) Moisture content of the fabric at the time of sewing.

169. P38 RIG
What affects the strength of a sewed seam?
A) Thread tension and stitches per inch.
B) Seam efficiency of the material and the type of seam.
C) Both of the above.

170. P37 RIG
Which stitching shown in Figure 7 illustrates a correctly folded and stitched radial seam? (Shown in cross section.)
A) 1.
B) 2.
C) 3.

171. P38 RIG
Which type of machine stitch is used most frequently in the repair and maintenance of parachutes?
A) Lock stitch.
B) Chain stitch.
C) Overedge stitch.

172. P38 RIG
Which of the seams illustrated in Figure 11 is a French fell seam?

- A) 1.
- B) 2.**
- C) 3.

173. P40 RIG

A bias-cut canopy is one in which

- A) all seams are biased.
- B) the canopy hem and vent hem are parallel to the selvage edge of the material in the gore.
- C) the threads in the panel segments are 45 degrees to the centerline of the gore.**

174. P56 RIG

Reserve closing loops are sewn together with what type stitch?

- A) Straight (301).
- B) Zigzag (308).**
- C) Bartack (392).

175. L90 RIG

The term 'backpack or chestpack' refers to the parachute assembly, less the

- A) reserve parachute.
- B) harness.**
- C) main parachute when referring to a dual assembly used for intentional jumping.

176. L90 RIG

When combining components certificated under TSO-C23b and TSO-C23c, which component is the limiting factor for speed and weight?

- A) Canopy.**
- B) Container.
- C) Harness.

177. P34 RIG

Select the term which is applicable to the material threads indicated by 'A' in the drawing of Figure 2.

- A) Warp.
- B) Fill.**
- C) Selvage.

178. P34 RIG

'Ripstop' is a term commonly used to describe

- A) webbing material.
- B) canopy material.**
- C) canvas material.

179. P34 RIG

Which of the fittings illustrated in Figure 6 has the greatest tensile strength?

- A) 1.
- B) 2.
- C) 3.**

180. P34 RIG

Which of the following pull forces on a nylon hook and pile fastener installation is the strongest?

- A) Peel, lengthwise.
- B) Curved shear, lengthwise.
- C) Straight shear, lengthwise.**

181. P34 RIG

Warp threads are those that run

- A) the length of a seam.
- B) the length of a bolt of material.**
- C) across the width of a bolt of material.

182. P36 RIG

Nylon tubular webbing is commonly used in which of the following parachute parts?

- A) Canopy lower lateral band.
- B) Pilot chute bridle line.**
- C) Harness straps.

183. P36 RIG

How is the outside covering of the parachute container provided with the necessary elasticity?

- A) By constructing it of nylon fabric.**
- B) By joining all seams using a zigzag stitch.
- C) By cutting the covering in one piece on the bias.

184. P36 RIG

Normally, ripcord cables are manufactured of

- A) Monel metal wire.
- B) stainless steel 3/32 aircraft cable.**
- C) galvanized carbon steel cable.

185. P37 RIG

The loose end of webbing used in a parachute harness should be secured by

- A) turning back three times and machine sewing.**
- B) searing and hand sewing.
- C) turning back three times and securing with a surgeon's knot.

186. P37 RIG

How many rows of stitches extend the entire length of the radial seam on a continuous line canopy?

- A) Two.
- B) Four.**
- C) Six.

187. P38 RIG

Identify the type of stitch formed when two needle threads pass through the material in the same perforation from opposite directions without interlacing or interlooping.

- A) Lock stitch.
- B) Chain stitch.
- C) Running stitch.**

188. P37 RIG

Identify the stitching in Figure 8 which illustrates the correct stitching pattern for attaching the connector link to the lift web.

- A) 1.**
- B) 2.
- C) 3.

189. P40 RIG

Which of the following statements is correct in reference to the construction of a gore as used in a bias-constructed type parachute canopy?

- A) Each gore is a single piece of fabric cut perpendicular to the centerline of the gore.
- B) Each gore is composed of sections cut at a 45 degree angle to the centerline of the gore.**
- C) Each gore is a single piece of fabric cut at a 45 degree angle to the centerline of the gore.

190. P37 RIG
At what point in the assembly of a parachute system should the ripcord pocket be secured to the harness?
A) Just before the canopy is packed.
B) After the canopy is packed.
C) Before the pack is attached to the harness.
191. P37 RIG
A rubber vent collar ring is capable of
A) holding the vent closed, especially during opening shock.
B) stretching to the diameter of the vent hem.
C) controlling horizontal direction while descending.
192. P37 RIG
On four-link canopies, the suspension lines are secured to the connector links using a
A) clove hitch and a half-hitch.
B) bowline and a clove hitch.
C) bowline and a half-hitch.
193. P37 RIG
Where are the suspension lines attached to the gores to prevent the canopy from slipping along the lines?
A) Along the radial seams.
B) Along the diagonal seams.
C) Along both the radial and diagonal seams.
194. P37 RIG
Select the knot in Figure 4 which shows a correct method for attaching suspension lines on a four-link canopy to a connector link. (Knots are shown expanded for clarity.)
A) 1
B) 2
C) 3
195. P37 RIG
What prevents an auxiliary pack canopy from collapsing if one connector snap is not secured or pulls out of the harness 'D-ring' when the canopy is deployed?
A) The cross connector strap.
B) The connector links.
C) The breast strap.
196. P37 RIG
Dacron control lines are desirable for ram-air canopies because
A) they stretch less than kevlar lines.
B) they are easier to install.
C) they resist guide ring abrasions better than kevlar lines.
197. P38 RIG
The elasticity of a properly constructed seam or stitching depends upon which of the following?
A) Thread strength and elasticity.
B) Seam type and thread elasticity.
C) Stitch type and thread elasticity.
198. P38 RIG
(1) The elasticity of a seam or stitching should be slightly less than the material which it joins.
(2) The elasticity of a seam or stitching depends upon the stitch type and the thread elasticity.
Regarding the above statements, which of the following is true?
A) Only No. 1 is true.
B) Only No. 2 is true.
C) Both No. 1 and No. 2 are true.

199. P36 RIG
Give one reason for properly attaching the ripcord housing to the parachute pack.
A) It is required by TSO-C23b.
B) To increase the ripcord pull force.
C) Helps retain the locking pins in their loops.

200. Y61 RIG
Which document contains specifications for TSO-C23c parachute assemblies?
A) Aerospace Standards 8015B.
B) American National Standard S-017.
C) National Aircraft Standards NAS-804.

201. P40 RIG
Which of the following is the definition of 'gore' as it applies to a parachute canopy?
A) A gore is a portion of fabric bounded by any two suspension lines, the apex, and the skirt hem.
B) A gore is that portion of double thickness fabric which is used to reinforce the canopy vent area (apex).
C) A gore is a portion of fabric cut on a bias with the warp of the fabric running at a 45 degree angle to the centerline of the section.

202. P37 RIG
What technique is used to assure uniformity in the length of nylon suspension lines for a given model parachute during their manufacture and/or replacement?
A) All suspension lines shall be marked while under no load to show points of attachment.
B) All suspension lines shall be marked while under equal tension to show points of attachment.
C) With no load on suspension lines, mark the points of attachment, then cut the line core approximately 2 inches longer than the sleeve.

203. Y61 RIG
What is the minimum pull allowed for the ripcord handle of a TSO-23c parachute assembly.
A) 5 lbs.
B) 16 lbs.
C) 22 lbs.

204. Y61 RIG
In addition to other required marking the stowage container of a TSO-C23c parachute assembly shall be marked with which information?
A) Lowest maximum operating weight and highest maximum operating speed of any component in the assembly.
B) Lowest maximum operating weight and lowest maximum operating speed of any component in the assembly.
C) Highest maximum operating weight and highest maximum operating speed on any component in the assembly.

205. Y61 RIG
TSO-C23c requires certain information be marked on components of a parachute assembly. Which of the following information is required on the ripcord?
A) Part number.
B) Category A, B, or C placard.
C) National Aircraft Standard Number 'NAS-804'.

206. Y60 RIG
What is the maximum pull in pounds allowed for the pack opening device of a TSO-C23b parachute?
A) 10 lbs.
B) 16 lbs.
C) 22 lbs.

207. Y60 RIG
Which document contains the specifications for TSO-C23b parachute assemblies?

- A) Aerospace Standard 8015B.
- B) American National Standard S-017.
- C) National Aircraft Standards NAS-804.

208. Y60 RIG
A low-speed parachute to be certified under TSO-C23b must withstand a shock load of

- A) 3,000 pounds.
- B) 5,000 pounds.
- C) 8,000 pounds.

209. Y60 RIG
Technical Standard Order-C23b provides specifications for which of the following types of parachutes?

- A) Low-speed and standard.
- B) Standard and sport.
- C) Low-speed and high-speed.

210. Y60 RIG
Which parts of a TSO-C23b parachute are required to be marked with the parachute model number, and date of manufacture?

- A) Canopy and harness.
- B) Pilot chute and canopy.
- C) Harness, pack, and canopy.

211. Y60 RIG
(1) Low-speed parachutes must be marked in accordance with NAS 804.
(2) TSO-C23b auxiliary parachutes are required to have an inner pocket for keeping a record card.
Regarding the above statements, which of the following is true?

- A) Only No. 1 is true.
- B) Only No. 2 is true.
- C) Both No. 1 and No. 2 are true.

212. Y60 RIG
To meet TSO-C23b requirements for FAA approval, all fittings on a parachute must be

- A) able to withstand their full-rated load without yielding.
- B) made of corrosion-resistant steel.
- C) plated to resist corrosion.

213. Y60 RIG
(1) Each parachute outfit shall be provided with at least an inner pocket for keeping a record card.
(2) The inner pocket shall be located in the center of the packed container tray or frame.

Regarding the above statements, for a TSO-C23b parachute, which of the following is true?

- A) Only No. 1 is true.
- B) Only No. 2 is true.
- C) Neither No. 1 nor No. 2 is true.

214. P40 RIG
Which of the following one-word definitions best describes a grommet?

- A) Button.
- B) Washer.
- C) Reinforcement.

215. Y60 RIG
Which specification is applicable to parachutes?

- A) TSO-C23b.
- B) TSO-C83a.
- C) TSO-C22a.

216. P40 RIG
Which statement describes the use, description, and type of material of grommets used in parachutes?
A) Used as a plastic reinforcement around holes for mounting clamp-type fasteners.
B) A round reinforcement used around holes, and made of metal.
C) Used between the button and stud of snap fasteners, round in shape, and made of metal.
217. P40 RIG
A canopy constructed so that the warp and filler threads of the cloth run 45 degrees to the centerline of the gore is called
A) angular construction.
B) radial construction.
C) bias construction.
218. P54 RIG
How is a barrel-type quick link (Rapid link) oriented when installed between a riser and the suspension lines?
A) The shorter section of the link connects to the riser.
B) The longer section of the link connects to the riser.
C) The links maybe turned either way, as long as all links are positioned the same.
219. P56 RIG
What is the best ratio of pilot chute area to main canopy area for deployment speeds up to 150 knots?
A) 5%
B) 3%
C) .5%
220. P57 RIG
Where are crossports located in a ram-air canopy?
A) At 10% of the cord.
B) In the outboard end ribs.
C) Midway between suspension line attachment points.
221. A44 RIG
Any repairs to a parachute must be done in accordance with procedures
A) approved by the FAA Administrator or the manufacturer of the parachute
B) contained in TSO-C23b.
C) contained in FAR Part 65.
222. P39 RIG
Parachute containers which have been contaminated with electrolyte from a lead-acid battery can be neutralized using a solution of
A) ammonia and distilled water.
B) potassium hydroxide and boric acid.
C) acetone and warm water.
223. P39 RIG
Which method is commonly used to remove mildew stain from a round parachute canopy?
A) Wash with naphtha.
B) Wash with mild soap and water.
C) Replace the entire panel that contains the stain.
224. P39 RIG
Select the correct statement concerning the cleaning of nylon parachute harness which has become soiled due to handling.
A) Wash with a 2 percent solution of phenol (carbolic acid).
B) Use warm water.
C) Clean the affected areas with a petroleum-base solvent.

225. P37 RIG
When replacing a torn out pack grommet, excess thickness in the patched area may cause
A) additional damage to the material at the grommet area.
B) more pressure on the ripcord pin.
C) the cone to protrude too far through the grommet.
226. P39 RIG
Which defect in a canopy would most likely require a minor repair?
A) Missing picks.
B) Floats or skips.
C) Pinholes.
227. P39 RIG
What is normally used to remove blood stains from parachutes?
A) Dry cleaning solvent.
B) Naphtha.
C) Cold water.
228. P39 RIG
Perspiration stains on a parachute must be treated in the same manner as contamination from
A) acid.
B) mildew.
C) salt water.
229. P39 RIG
What is used to neutralize the destructive effects of battery acid on parachutes?
A) Ammonia.
B) Acetone.
C) Warm water.
230. P37 RIG
How should warp and filler threads of a patch be oriented to the material being patched?
A) At 45 degrees to the original material.
B) At 90 degrees to the original material.
C) Matching the original material pattern.
231. P39 RIG
Which method is commonly used to remove grease and oil stains from parachute canopies?
A) Apply an approved solvent.
B) Wash with castile soap and water.
C) Replace the entire panel that contains the stain.
232. P37 RIG
(1) If the suspension lines were found to be out of rotation on a quick removal link, it would constitute a minor repair to slip the lines off the link and replace them in the proper sequence.
(2) The pilot chute bridle cord may be retied or replaced as a minor repair.
Regarding the above statements, which of the following is true?
A) Only No. 1 is true.
B) Only No. 2 is true.
C) Both No. 1 and No. 2 are true.
233. P39 RIG
Which procedure should be followed when testing parachute fabric for suspected acid stains?
A) Rub vigorously with an artgum eraser.
B) Twist the fabric back and forth with the fingers.
C) Apply litmus paper moistened with distilled water.

234. P37 RIG
How is a suspension line attachment loop of a ram-air canopy repaired if the surrounding material is not stressed?
The broken loop is
A) completely removed and a new loop stitched in place.
B) cut off even with the bottom of the seam and a new loop stitched over the remnant of the old loop.
C) rejoined using the fingertrap method then bar tacked with a zig-zag stitch.
235. P37 RIG
What precaution must be observed when replacing a broken or missing eye on a container?
A) Replace the eye and the pack opening band hook.
B) Sew the eye to a reinforced area of the container.
C) Replace the eyes adjacent to the broken or missing one.
236. P39 RIG
Which statement applies to the care of a nylon parachute that has fallen into a lake or river of fresh water?
A) Rinse in a mild soap and water solution to remove dirt and hang in the Sun to dry.
B) Twist the fabric parts gently by hand to remove excess water and hang until dry.
C) Rinse in clean fresh water, hang in tower, and allow to dry.
237. P39 RIG
Which defect in parachute canopy material is characterized by an abruptly thickened place in the cloth or a bunch of lint caught in the yarn?
A) A float.
B) Undrawn yarn.
C) A slub or strip back.
238. P57 RIG
How should repair of a canopy with both fabric and line damage be accomplished?
A) Lines should be repaired first.
B) Fabric should be repaired first.
C) The order of repair depends on the type of materials used in the construction of the assembly.
239. P57 RIG
What is the maximum number of internal line splices that maybe made to a certificated canopy?
A) One.
B) Four.
C) Six.
240. P37 RIG
Strength is given to a patch by
A) securing it to a seam.
B) anchoring it to a suspension line.
C) applying a filler patch in the trimmed hole.
241. P37 RIG
What is the reason for matching the weave of the patch material with that of the canopy being repaired?
A) To provide a more pleasing appearance.
B) So that the permeability of the canopy is unchanged.
C) To assure that the patch elasticity is the same as the canopy material.
242. P38 RIG
Which statement is correct concerning sewing and stitching as applied to parachute repair?
A) Seams joined by zigzag stitching are capable of greater joint elongation without creating excessive tensile stress of the thread itself.
B) All thread must be coated with beeswax prior to use.
C) Use 5-cord linen thread for all hand sewing.

243. P39 RIG

A ripcord pin that is slightly bent is

- A) cause for corrective action.
- B) of little concern because the safety hazard is negligible.
- C) desired for easier pack closing.

244. P39 RIG

If a ripcord pin is slightly burred, what procedure should be followed?

- A) The entire ripcord assembly must be replaced.
- B) The ripcord pin should be carefully smoothed with fine emery cloth.
- C) The ripcord pin should be replaced.

245. P37 RIG

A rough locking cone surface sometimes can be field repaired by

- A) rotating 180 degrees and reinstalling.
- B) grinding the cone using an emery wheel.
- C) dressing the cone with No. 2 sandpaper.

246. P39 RIG

Which of the following methods should be used to dry a parachute canopy that has been rinsed or soaked in clear water?

- A) Dry the canopy in an electric dryer.
- B) Wring the canopy thoroughly and hang it to dry.
- C) Hang the canopy in a drying tower and allow it to drip dry.

247. P39 RIG

Why is an acid stain more serious than any other type of stain on a parachute?

- A) It may not be detected until deterioration of the fabric occurs.
- B) It can be treated only at a certificated repair facility.
- C) No repair is authorized.

248. P39 RIG

When replacing a damaged ripcord with a serviceable one, which of the following requirements must be met?

- A) Functionally test the parachute for proper operation.
- B) Check the ripcord for proper length.
- C) Replace the ripcord housing with a serviceable assembly.

249. P39 RIG

Battery acid stains on the parachute containers and harnesses made of dark fabrics generally will appear

- A) white.
- B) red.
- C) brown.

250. P39 RIG

A white crystalline substance on a parachute canopy or pack is evidence of a stain caused by

- A) salt water.
- B) gasoline.
- C) acid.

251. P39 RIG

During the inspection of a parachute canopy, an area is found where a number of warp yarns are not properly interlaced. This condition is best described as

- A) undrawn yarn.
- B) a smash.
- C) a float.

252. P39 RIG
When necessary to clean a large area of a round canopy to remove stains and dirt, which of the following cleaning methods should be used?
A) Submerge the canopy in a cleaning mixture and rub the material together until the stain is removed.
B) Scrub the stained area using a soft bristle brush saturated with clean, fresh water.
C) Wash in warm water with a mild soap. Soak and agitate until dirt is removed and rinse several times.
253. P34 RIG
When operating a sewing machine, which of the following can occur if the feed dog is positioned too high?
A) Staggered stitches.
B) The cloth will pucker.
C) Stitches will break or pull out.
254. P58 RIG
When stitching a finger trap loop, where should bar tacking be placed?
A) On both ends of the loop.
B) Close to the formed loop.
C) Continuous from loop to bitter end.
255. P37 RIG
Normally, when hand sewing loose eyes on a parachute container, each step should be sewn with
A) six turns of a double 3-cord nylon thread.
B) five turns of a single 6-cord nylon thread.
C) two turns of a 3-cord cotton doubled and waxed thread.
256. P33 RIG
When starting to sew a seam with a lock stitch sewing machine, the operator should hold
A) both threads for the first three or four stitches.
B) the lower thread for the first two stitches.
C) the upper thread for the first two stitches.
257. P37 RIG
Ripstop tape may be used for which of the following purposes?
A) To attach the excess length of harness riser strap to the container.
B) To repair minor defects in the canopy.
C) To make major repairs to canvas containers.
258. P33 RIG
Which tool is generally used when replacing pack opening elastics or spring bands?
A) A packing hook.
B) A bodkin.
C) An awl.
259. P37 RIG
What test method is used to determine tear resistance of fabric having approximately the same strength in both warp and fill directions?
A) Trapezoid.
B) Tongue.
C) Tangent.
260. P33 RIG
Which component of the sewing machine used for parachute repair work prevents the thread from becoming split by the needle as it travels through the material?
A) The needle bar.
B) The thread take-up lever.
C) The needle thread controller spring.

261. A01 RIG

(1) Replacement of a canopy panel is a minor repair.
(2) Replacement of a suspension line is a minor repair.
Regarding the above statements, which of the following is true?

- A) Only No. 1 is true.
- B) Only No. 2 is true.
- C) Neither No. 1 nor No. 2 is true.

262. P33 RIG

What determines the proper size sewing machine needle to use in repairing a parachute?

- A) The machine being used.
- B) The size of hole in the feed dog.
- C) The thread size and material being used.

263. P58 RIG

Identify the knots in the order shown in Figure 9.

- A) (1) square; (2) clove hitch; (3) lark's head.
- B) (1) surgeon's; (2) lark's head; (3) clove hitch.
- C) (1) surgeon's; (2) bowline; (3) lark's head.

264. P58 RIG

When preparing braided line for a finger trap loop, how should the line be cut? The end should be

- A) sheared straight.
- B) trimmed diagonally with a hot knife.
- C) trimmed diagonally with a pair of scissors.

265. P57 RIG

What is the correct procedure for measuring replacement Spectra line? Before marking, tension under

- A) 10 lbs.
- B) 5 lbs. for 30 minutes.
- C) 30 lbs. for 30 seconds.

266. P53 RIG

What is the most accepted process used when cutting nylon webbing?

- A) Shearing.
- B) Seaming.
- C) Cutting.

267. P40 RIG

(1) Filler yarns of parachute canopy materials run crosswise of the cloth as it comes from the loom.
(2) When applying a patch, the patch material filler yarns must be matched with those of the canopy.
Regarding the above statements, which of the following is true?

- A) Only No. 1 is true.
- B) Only No. 2 is true.
- C) Both No. 1 and No. 2 are true.

268. P36 RIG

Why is it necessary that the open end of pack opening elastic or spring band hooks be closed with pliers?

- A) The pilot chute canopy or suspension lines have less chance of catching on hooks.
- B) The hook may slip out of the eye when the pack opens unless assembled in this manner.
- C) The hook and eye is easier to assemble in this manner.

269. A01 RIG

- (1) Dyeing of a canopy is an alteration.
(2) Replacement of a suspension line is a minor repair.
Regarding the above statements, which of the following is true?

- A) Only No. 1 is true.
B) Only No. 2 is true.
C) Both No. 1 and No. 2 are true.

270. P37 RIG

The most common fabric damage to ram-air canopies occurs where?

- A) The upper surface.
B) The ribs.
C) The lower surface.

271. P37 RIG

When repairing a broken stitch in a canopy seam, what action should be taken?

- A) Overstitch for at least 1 inch on each end.
B) Reinforce the seam by applying a patch.
C) Sew back and forth across the ends of the broken stitch.

272. P37 RIG

Removal of a grommet is accomplished principally by which operation?

- A) Filing.
B) Prying.
C) Crimping.

273. P37 RIG

A worn locking cone must be

- A) smoothed by grinding the cone using an emery wheel.
B) replaced with a new cone.
C) smoothed by rubbing the cone with emery cloth.

274. P37 RIG

Which type of stitch should be used for sewing a tear in a parachute container in preparation for patching?

- A) Backstitch.
B) Baseball stitch.
C) Darning stitch.

275. P33 RIG

Figure 10 is a cross section of a series of lock stitches sewn by machine. Which action will aid in correcting the fault shown?

- A) Decrease bobbin thread tension and increase needle thread tension.
B) Increase bobbin thread tension and decrease needle thread tension.
C) Increase presser foot pressure and decrease feed dog pressure.

276. P37 RIG

What size thread is used to sew nylon canopy radial seams when making a repair?

- A) One size larger than original.
B) Size B.
C) Size E.

277. P33 RIG

A properly adjusted sewing machine will produce a stitch that locks

- A) on the top surface of the materials being joined.
B) on the bottom surface of the materials being joined.
C) in the center of the thickness of the materials being joined.

278. P33 RIG

What is one result of having too much thread in the bobbin when machine sewing?

- A) Staggered stitching.
- B) Improper meshing of the lock stitch.
- C) Lower thread breakage.

279. P33 RIG

Which of the following is used to determine the size of the sewing machine needle to be used for a particular job?

- A) Size of the hole in the feed dog.
- B) Length of the seam to be sewn.
- C) Thread size and type of cloth.

280. P33 RIG

(1) When machine sewing, skipped stitches can result if the needle is bent.

(2) Excessive friction between the thread and the needle eye could cause skipped stitches.

Regarding the above statements, which of the following is true?

- A) Only No. 1 is true.
- B) Only No. 2 is true.
- C) Both No. 1 and No. 2 are true.

281. P33 RIG

Figure 15 shows a cross section of a series of lock stitches sewn by machine. What action will help correct the fault shown?

- A) Decrease bobbin thread tension.
- B) Decrease needle thread tension.
- C) Decrease stitch spacing.

282. P33 RIG

Figure 13 is a cross section of a series of lock stitches sewn by machine. What action will help correct the fault shown?

- A) Decrease bobbin thread tension.
- B) Decrease needle thread tension.
- C) Decrease stitch length.

283. P33 RIG

If the bobbin is threaded incorrectly, what is the most likely malfunction to occur while operating a sewing machine?

- A) Skipped stitches.
- B) Breakage of the lower thread.
- C) Breakage of the upper thread.

284. P33 RIG

(1) A sewing machine will not feed properly if the feed dog is set too low.

(2) Too little pressure on the presser foot of a sewing machine will result in staggered stitches.

Regarding the above statements, which of the following is true?

- A) Only No. 1 is true.
- B) Only No. 2 is true.
- C) Both No. 1 and No. 2 are true.

285. A01 RIG

Replating a load-carrying parachute fitting would be considered a

- A) major alteration.
- B) major repair.
- C) minor repair.

286. A01 RIG
Chrome plating a cadmium plated load-carrying parachute fitting would be considered
A) an alteration.
B) a major repair.
C) a minor repair.

287. L90 RIG
What procedures should be followed to obtain field approval for installation of an automatic opening device on an auxiliary parachute pack?
A) A person qualified to alter a parachute should submit the proposed alteration to the FAA.
B) A master parachute rigger shall install the automatic opener and sign the packing card.
C) The manufacturer of the device shall install it on the auxiliary pack and sign the packing card.

288. L90 RIG
When an alteration of an approved parachute is unavailable from the manufacturer, a qualified person shall seek approval by:
A) Submitting modification information to the parachute manufacturing Association.
B) Executing an FAA Form 337 with a complete documentation of the alteration.
C) Make an application in letter form to the local Flight Standards District Office (FSDO).

289. L90 RIG
The installation of an automatic opening device on a reserve parachute would be considered
A) an alteration.
B) a minor alteration.
C) a major repair.

290. P34 RIG
Which hazard is associated with chrome plating of parachute hardware?
A) Hydrogen embrittlement of the metal parts.
B) Slippage of the metal parts due to increased coefficient of friction.
C) Weakening of the hardware due to the annealing effect of the plating process.