



## Sigma Tandem Instructor Exam

### Sigma Tandem Instructor Exam:

1. The responsibility to ensure the valid credentials of the UPT Sigma Tandem Examiner before the course begins, belongs to whom?
2. The expiration date of UPT Sigma Tandem Examiner conducting this course is?
3. The course start date for my UPT Sigma Tandem Course is?
4. Have you read the Sigma Manual in its entirety?
5. Date of Tandem Instructor candidate medical?

### Sigma Tandem System Performance Envelope Questions:

1. Normal drogue fall terminal velocity is?
2. Tandem freefall terminal velocity is?
3. It takes \_\_\_\_\_ seconds to fall 1,000 feet at terminal velocity with a drogue?
4. It takes \_\_\_\_\_ seconds to fall 1,000 feet at terminal velocity without a drogue?
5. What is the purpose of a drogue?
6. If a drogue is deployed after 20 seconds of tandem freefall, how long will it take to slow the tandem down to 120 mph?
7. A packed Sigma tandem system and student harness weighs approximately?
8. A packed Micro Sigma tandem system and student harness weighs approximately?
9. Maximum suspended weight for the Sigma or Micro Sigma Tandem system is?
10. The approximate maximum student weight is calculated by?
11. Your tandem master weight is \_\_\_\_\_ therefore your maximum tandem student weight is?
12. How long should the trap door effect be?
13. What problem is caused by a kill line that is too short?
14. What problem is caused by a kill line that is too long?
15. How can you tell if a drogue was cocked during packing?
16. What might happen if you deploy a drogue which had not been cocked properly during packing?
17. What might happen if you hold on to the drogue for a second after pulling it out of the pouch, instead of throwing it briskly to the side?
18. What happens if the screw in the drogue disc is missing or loose?
19. What is the purpose of the "safety pin" on the drogue bridle?
20. What length should the exposed kill line be above the grommet at the base of the drogue envelope be?
21. How often should the drogue be calibrated?
22. What would happen if the kill line were not attached to the #5 link at the top of the main deployment bag, or the kill line were to break during deployment?
23. What are the negative consequences of such an occurrence?
24. Explain the use of the double brake system on the Sigma II canopies.
25. Explain the negative consequences of loose student side attachment straps.
26. Give three causes of an unstable exit.
27. What happens if a student's knees are tucked up toward his chest during drogue fall?
28. Why is it a bad idea to reach in front of a student to bring his arms into a correct free fall position?
29. What should you feel immediately upon pulling the drogue release handle?
30. Under what condition is use of a canopy catcher warranted?
31. What direction should the main closing pin be inserted in the closing loop?
32. What might happen if it is inserted from the wrong direction?

33. What will happen to the pull force if you pack twists into the ripcords below the pin?
34. PSB # 2015-01 issued in 2015 is regarding?
35. PSB # 300107 issued in 2007 is regarding?
36. The Y Strap is mandatory on Sigma student harnesses as of what date?
37. Authorized AAD units for the Sigma Tandem System are?
38. Arming altitudes of the AAD unit are?
39. Activation altitudes of the AAD units are?
40. The red lanyard attached to the Sigma RSL is connected to?
41. The yellow lanyard attached to the Sigma RSL is designed to do what?

### **Sigma Standard Operation Procedures:**

42. Minimum functionally open main altitude for tandem jumps after probation is ft?
43. Minimum exit altitude for tandem jumps after probation is?
44. Who may do RW with a tandem pair? Which four instructions must you give the relative worker?
45. Which requirements must a photographer meet before they can film a tandem?
46. When should the drogue be deployed on a normal tandem jump?
47. Is backing out of a side door aircraft on a tandem jump allowed?
48. What footwear is forbidden to be worn by either tandem instructor or student on a Sigma tandem jump?
49. The minimum tandem open canopy horizontal separation is?
50. The responsibility for pre-flighting a Sigma and Micro Sigma tandem system belongs to?
51. The responsibility for ensuring that a Sigma and Micro Sigma have in-date reserve repacks and are Product Service Bulletin compliant falls on whom?
52. What is the proper student arm position on exit?
53. What is the minimum briefing you should give any student before a tandem jump?
54. List some negative aspects of over training a tandem student?
55. What circumstances require extra landing training for a student?
56. Why is a stable exit advisable with a first-time tandem student?
57. What is the minimum age for tandem students?
58. What types of tandem jumps are prohibited?
59. What medical certificate is required to maintain or receive a tandem rating?
60. Which administrative actions does uninsured United Parachute Technologies, LLC require before a first tandem jump?
61. To renew a tandem rating, an applicant must have made \_\_\_\_\_ tandem jumps within the last \_\_\_\_\_ months, of which \_\_\_\_\_ must have been made in the last \_\_\_\_\_ months.
62. Recurrency training consists of?
63. If a Tandem Instructor (after probation) has not made a tandem jump in the preceding 90 days he must?
64. If a Tandem Instructor (after probation) has not made a tandem jump within the preceding 180 days he must:
65. Which qualifications must one have to be eligible to become a UPT Tandem Instructor?
66. The initial Tandem Instructor training course consists of \_\_\_\_\_ jumps.
67. What qualification must the first five passengers during the probationary period have?
68. A novice Tandem Instructor must make at least \_\_\_\_\_ probationary jumps.
69. A novice Tandem Instructor may be accompanied by a free fall photographer after having made \_\_\_\_\_ tandem jumps.
70. What additional training must a student be given if they have access to the drogue release?
71. Under what circumstances is relative work permitted if the student has access to the drogue release handle?
72. What is the minimum number of tandem jumps (post probation) that need to be made before using a hand cam on tandem jumps?
73. What is the total number of tandem jumps needed to be made including probationary tandem jumps before using hand cam?
74. The procedures for integrating hand cam use on Sigma tandem jumps are?
75. Are pole camera mounts authorized for use on hand cam tandem jumps?

76. What is the maximum degree of turn for tandem canopies at or below 500ft AGL?
77. Are Handles Checks REQUIRED on EVERY TANDEM SKYDIVE regardless of whether or not the tandem instructor is using a hand cam device on the tandem jump?
78. FAR 105.45 requires what student training to be conducted BEFORE boarding the aircraft?

**Emergency Procedures:**

79. Describe the correct aircraft emergency procedure below 1,500 feet.
80. Describe the correct aircraft emergency procedure between 1,500 feet and 4000 feet.
81. Describe the correct aircraft emergency procedure above 4000 feet.
82. Describe the correct cutaway procedure from a partial malfunction.
83. Describe the correct procedure for a Horseshoe malfunction.
84. Describe the correct response to an uninflated drogue after drogue set. What is your terminal velocity with this malfunction?
85. Describe the correct response to an uninflated drogue after drogue set. What is your terminal velocity with this malfunction?
86. Describe the correct response to a collapsed drogue in tow during main deployment.
87. What should you do if you accidentally pull the drogue release handle before you deploy the drogue?
88. What should you do if you can't pull the drogue from its pouch after several attempts within 10 seconds after exit?
89. What should you do if you tumble when deploying the drogue and the bridle wraps around your legs? What is your terminal velocity with this malfunction?
90. What should you do if you tumble when deploying the drogue and the drogue canopy entangles with you? What is your terminal velocity with this malfunction?
91. What should you do if the drogue is entangled with your fully open canopy?
92. What should you do if one drogue release handle is pulled and the drogue does not release?
93. Why is it unwise to show a student your wrist mounted altimeter in freefall?
94. Explain the correct way to pull your reserve or cutaway handles free of their Velcro pockets.
95. What would you do if your left shoulder was dislocated and you needed to pull your reserve?
96. List the primary causes of tandem incidents that resulted in a fatality.
97. What is the procedure for videographer caught in drogue bridle?
98. Describe the procedure for a water landing.
99. The Sigma Emergency Procedure diagram is located on what pages of the Sigma Manual?

**Post Main Canopy Opening Procedures:**

100. What can be done, after opening the main, to make the student's harness more comfortable?
101. The Side Lateral Connections must be detached, loosened and reattached where on the Sigma Tandem Harness?
102. Under which circumstances is CRW with tandems permitted?
103. List the post canopy opening procedures.

**Sigma Exam Knowledge Certification:**

The following statement must be written by the Sigma Tandem Instructor Candidate:

"I, (Instructor Candidate Name) have completed and corrected this Sigma Tandem Examination to a score of 100% on \_\_\_\_\_ at \_\_\_\_\_.

I have reviewed this exam in its entirety with my UPT Sigma Tandem Examiner."

\_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

Instructor Candidate Name: \_\_\_\_\_ Examiner Name: \_\_\_\_\_

Candidate Signature: \_\_\_\_\_ Examiner Signature: \_\_\_\_\_

Date: \_\_\_\_\_ Date: \_\_\_\_\_