



SIGMA

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# Sigma Tandem Instructor Exam

#### **Course Credentials Verification:**

- 1. The responsibility to ensure the valid credentials of the UPT Sigma Tandem Examiner before the course begins, belongs to whom?
- The expiration date of the UPT Sigma Tandem Examiner conducting this course is? 2.

The course start date for my UPT Sigma Tandem Course is? 3.

- Have you read the Sigma Manual in its entirety (minus the reserve packing if not a certified rigger)? 4.
- Tandem Instructor candidate medical's examination date \_\_\_\_\_\_ and expiration date? 5.

### Sigma Tandem System Performance Envelope Questions:

6	Normal drogue fall termin	al valacity ic?
6	Normal drogue fall termin	al velocity is

Tandem freefall terminal velocity is? 7.

It takes seconds to fall 1,000 feet at terminal velocity with a drogue. 8.

It takes seconds to fall 1,000 feet at terminal velocity without a drogue. 9.

10. What is the purpose of a drogue?

11. If a drogue is deployed after 20 seconds of tandem freefall, how long will it take to slow the tandem down to 120 mph?

12. A packed Sigma tandem system and student harness weighs approximately?

13. A packed Micro Sigma tandem system and student harness weighs approximately?

14. Maximum combined suspended weight for the Sigma or Micro Sigma Tandem system is? (Specify both reserves)

15.	Your tandem instructor /	master weight is	therefore your maximum tandem student	weight is ?

16. How long should the trap door effect be?

17. What problem is caused by a drogue center line that is too short?

18.	What problem is caused by a drogue center line that is too long?
19.	How can you tell if a drogue was cocked during packing?
20.	What might happen if you deploy a drogue which had not been cocked properly during packing?
21.	What might happen if you hold on to or delay throwing the drogue after pulling it, instead of throwing it briskly to the side?
22.	What happens if the screw in the drogue disc is loose or missing?
23.	What is the purpose of the "safety pin" on the drogue bridle?
24.	What length should the exposed kill line be above the grommet at the base of the drogue envelope be?
25.	How often should the drogue be calibrated?
26.	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
27.	were to break during deployment?
28.	Explain the negative consequences of loose student side attachment straps on exit?
29.	Why is it a bad idea to reach in front of a student to bring their arms into a correct free fall position?
30.	What should you feel immediately upon pulling the drogue release handle?
31.	Under what condition is use of a canopy catcher warranted?

32.	Which direction should the closing pin be inserted?			
33.	What clock position should the main closing pin be pointing while secured in the closing loop?			
	What might happen if it is inserted from or pointing in the wrong direction?			
35.	What will happen to the pull force if you pack twists into the ripcords below the pin?			
36.	Authorized AAD units for the Sigma Tandem System are?			
37.	Arming altitudes of the AAD units are?			
38.	Activation altitudes of the AAD units are?			
39.	The red lanyard attached to the Sigma RSL is connected to?			
40.	The yellow lanyard attached to the Sigma RSL is designed to do what?			
<u>Sic</u>	ma Standard Operation Procedures:			
41.	1. Why are procedures the most important aspect to tandem jumping?			
42.	List the hookup sequence:			
	1			
	2			
	3			
	4			
43.	What is the minimum functionally open main parachute altitude for tandem jumps after probation?			

44.	Minimum exit altitude for tandem jumps after probation is?
45.	What is one of the three leading causes for a tandem pair going unstable when leaving the aircraft?
46.	Who may do RW with a tandem pair? Which four instructions must you give the relative worker?
47.	Which requirements must a photographer meet before they can film a tandem?
48.	When should the drogue be deployed / thrown on a normal tandem jump?
49.	Is backing out of a side door aircraft on a tandem jump allowed?
	What footwear is forbidden to be worn by either tandem instructor or student on a Sigma tandem jump?
00.	
51.	The minimum horizontal separation under canopy for a tandem from any other canopy is.
52.	The responsibility for pre-flighting a UPT Tandem system belongs to?
53.	What items are included in the Pre-Flight gear check (before donning the equipment)?

54.	The responsibility for ensuring that a Sigma and Micro Sigma have in-date reserve repacks and are Product Service
	Bulletin compliant falls on whom?
55.	What is the proper student arm position on exit?
56.	What is the minimum briefing you should give any student before a tandem jump?
57.	List some negative aspects of over training a tandem student?
58.	What circumstances require extra landing training for an instructor?
59.	What is the minimum age for tandem students within the United States?
60.	Which administrative actions does uninsured United Parachute Technologies, LLC require before a passenger / student
	does a tandem jump?
61	To renew a tandem rating, an applicant must have made tandem jumps within the last months.
62.	If a Tandem Instructor (after probation) has not made a tandem jump in the preceding 90 days, they must:
63.	If a Tandem Instructor (after probation) has not made a tandem jump within the preceding 180 days, they must:
64.	Which qualifications must one have to be eligible to become a UPT Tandem Instructor?
65.	The initial Tandem Instructor training course consists of jumps.

66.	What qualification must the first five	passengers durir	ng the probationar	v period have (	(phase 2)?

67. A novice Tandem Instructor must make at least probationary jumps.

68. What additional training must a student be given if they have access to the drogue release?

69. Under what circumstances is relative work (docking) not permitted?

70. What is the minimum number of tandem jumps that need to be made before using a handcam on tandem jumps?

71. Are pole camera mounts authorized for use on handcam tandem jumps?

- 72. What is the maximum degree of turn for tandem canopies at or below 500ft AGL? \_\_\_\_\_
- 73. Are Handles Checks REQUIRED on EVERY TANDEM SKYDIVE regardless of whether the tandem instructor is using

a hand cam device on the tandem jump? \_\_\_\_\_

74. When are you to start your handle checks?

75. List the procedures for handles check in order of execution:

1.	
2.	
3.	
4.	
5	

76. What student training is required to be conducted BEFORE boarding the aircraft?

1.	
2.	
3.	
4.	
5.	
6.	

# **Emergency Procedures:**

77.	Describe the correct aircraft emergency procedure below 1,500 feet.
78.	Describe the correct aircraft emergency procedure between 1,500 feet and 4000 feet.
79.	Describe the correct aircraft emergency procedure between 4000 feet and 7500 feet.
80	Describe the correct aircraft emergency procedure from 7,500 feet and above.
00.	
81.	Describe the correct cutaway procedure from a partial malfunction.
82.	Describe the correct procedure for a Horseshoe malfunction.
83	Describe the correct response to an inflated drogue ("in tow") that does not release the main pin during a main canopy
	deployment attempt. What is your terminal velocity with this malfunction?

- 84. Describe the correct response to an uninflated drogue right after drogue set. What is your terminal velocity with this malfunction?
- 85. Describe the correct response to a collapsed drogue in tow. What is your terminal velocity for this malfunction?

86. What should you do if you accidentally pull the drogue release handle before you deploy the drogue?

- 87. What should you do if you can't pull the drogue from its pouch after several attempts within 10 seconds after exit?
- 88. What should you do if you tumble when deploying the drogue and the bridle wraps around you or your passenger? What is your terminal velocity with this malfunction?
- 89. What should you do if you tumble when deploying the drogue and the canopy entangles with you or your passenger? What is your terminal velocity with this malfunction?

90. What should you do if the drogue is entangled with your fully open canopy?

91. What should you do if one drogue release handle is pulled, and the drogue does not release (Hard Pull)?

92. Why is it unwise to show a student your wrist mounted altimeter in freefall?

93. Explain the correct way to pull your reserve or cutaway handles free of their Velcro pockets.

94.	What would you do if your left shoulder was dislocated, and you needed to pull your reserve?
95.	List the primary causes of tandem incidents that resulted in a fatality.
96.	What is the procedure for videographer caught in drogue bridle?
97.	Describe the procedure for a water landing:
98.	The Sigma Emergency Procedure diagram is located on what pages of the Sigma Manual?
<u>Pc</u>	est Main Canopy Opening Procedures:
99.	What can be done, after opening the main, to make the student's harness more comfortable?

100. The Side Lateral Connections must be detached, loosened, and reattached where on the Sigma Tandem Harness

prior to landing?

101. Under which circumstances is CRW with tandems permitted?

102. List the post canopy opening procedures:

### Sigma Exam Knowledge Certification:

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

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

## Extra room for noted corrections:


#### LINES HAVE BEEN PROVIDED. IF ADDITIONAL PAGES ARE NEEDED, MAKE COPIES OF PAGE 11!

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Corrections continued						