Chapter 12 - Turbulence

1. Aviation turbulence is defined as “__________”. The definition of how much turbulence there is depends on the reaction of things inside the _____________. For example, if the pilot observes occupants being forced violently against ____________, the pilot would report that turbulence as severe. 12-3

2. The four types of turbulence are _________, _________, _________, and _________ 12-3

3. Light Turbulence momentarily causes slight, erratic changes in altitude or attitude and is sometimes called _______ _______. 12-3

4. Moderate turbulence causes _______ in altitude and / or _______ and also causes variations in _________ airspeed, and rapid _______ or jolts. 12-3

5. _______ turbulence causes large, abrupt changes in altitude and or attitude, _______ variations in indicated airspeed, the aircraft may be _________ out of _______. 12-3

6. Extreme turbulence _______ tosses the aircraft about, the aircraft is _________ _________ to control, may cause _________ damage 12-3

7. __________________ (CAT) or Chop occurs when turbulence occurs in free atmosphere away from any visible ____________. Most CAT occurs above 15,000 feet and is often associated with the __________. 12-3

8. For quantitative measures of severe turbulence the indications would be an airspeed fluctuation of _________ knots or more, a G-load change of _________ Gs, and a vertical gust of _________ feet per minute. 12-4

9. The four basic aviation turbulence categories are 12-5
   
   Category       Cause
   ____________________________ ____________________________
   a. ____________________________ ____________________________
   b. ____________________________ ____________________________
   c. ____________________________ ____________________________
   d. ____________________________ ____________________________

10. For pilots, the type of approach for during gusty winds is a _________ approach and a _________ landing. 12-6
11. When taking off from a valley surrounded by mountains, climb above the level of _________ peaks before leaving the valley. Maintain enough _________ clearance from the mountains to recover from any downdraft that might catch you. 12-7

12. Characteristics of unstable cold air masses moving over a warm surface are _________ clouds, _________, and _________ visibility. 12-9

13. The greatest time when aircraft will generate wake turbulence is when the aircraft is _________, _________ and _________. Wake turbulence is greatest when a jet transport has just taken off because of the high _________ and high _________. To avoid wake turbulence when flying behind a large aircraft on approach, the pilot of the following airplane should fly _________ and _________ of the flight path of the preceding heavier aircraft. 12-11

14. If flying near a location where CAT has been reported, pilots should adjust airspeed to the airspeed recommended for _________. 12-17

15. A sharply curving jet stream will generate _______ turbulence than a straight flowing jet stream. Significant CAT is more likely to occur when the core speed of the jet stream exceeds ___ knots 12-18

16. The best airspeed to fly when you expect to encounter turbulence is _________. Speed because _________ Speed provides the greatest amount of room for the aircraft to fly and not exceed ___ limits or _________ limits - Lecture Point