Continuing Education Course #179
Interchange Ramp Characteristics
Selection and Design
Test Worksheet

1. The tapered type of exit terminal and the parallel type of entrance terminal are the most widely used by State D.O.T.’s.
   a. True
   b. False

2. Taper type entrance ramps merge with the mainline at 50:1 or 70:1 taper rates.
   a. True
   b. False

3. Tapered entrance terminals function best under heavily congested traffic conditions.
   a. True
   b. False

4. Tapered entrance terminals are preferred on roadways with a design speed of 65 mph or greater.
   a. True
   b. False

5. FHWA recommends the use of parallel entrance terminals on new and reconstructed interchanges.
   a. True
   b. False

6. A parallel entrance terminal should not be considered, when there is a large volume of trucks and the entrance is on a steep upgrade.
   a. True
   b. False

   a. True
   b. False

8. During congested traffic conditions, a tapered entrance terminal has an advantage over the parallel type.
   a. True
   b. False

9. The majority of State D.O.T.’s use the tapered exit terminal.
   a. True
   b. False

10. An advantage of the tapered exit terminal is that it encourages drivers to maintain their speed until they clear the mainline.
    a. True
    b. False

11. A tapered exit terminal can be used when a portion of the taper is on a bridge.
    a. True
    b. False

12. When a exit must be located beyond the crest of an existing mainline, it is satisfactory to use a tapered exit terminal.
    a. True
    b. False

13. Parallel exit terminals are recommended for use when the ramp is located on a mainline curve.
    a. True
    b. False

14. Parallel exit terminals should be considered when the mainline speed is above 60 mph.
    a. True
    b. False

15. Directional Ramps are normally two lanes wide.
    a. True
    b. False
16. When designing a “three curve compounded” loop ramp the curve sequence of a sharp/flat/sharp curve should not be used.
   a. True
   b. False

17. A two-lane loop ramp could be an economical alternate to a directional ramp.
   a. True
   b. False

18. Left hand ramps tend to confuse and surprise drivers, even with proper signing.
   a. True
   b. False

19. Left hand exit ramps can be safely used on mainline curves to the left.
   a. True
   b. False

20. Is it possible for heavy trucks with certain loading conditions to rollover at speeds below the design speed.
   a. True
   b. False

21. The lateral acceleration of acting on a tractor-trailer, with a rollover threshold value of 0.31 is?
   a. 0.17
   b. 0.18
   c. 0.16

22. The rollover threshold of a heavy truck is defined, as the maximum amount of lateral acceleration a truck can withstand without rolling over.
   a. True
   b. False

23. The suggested rollover threshold value used by the N.Y. D.O.T. for a tanker truck is?
   a. 0.22 g’s
   b. 0.32 g’s
   c. 0.26 g’s

24. Some of the critical locations where the designer should check for truck rollover are:
   a. Exit ramps
   b. Sharp curves at the end of steep down grades.
   c. Reverse curves
   d. All of the above

25. There is a large increase in accidents when there is a 10 to 15 mph difference in speeds between a tractor-trailer entering a freeway and the vehicles traveling on the freeway.
   a. True
   b. False