

Traffic Signal - Quiz

1. Which of the following best defines a traffic-signal cycle?
 - A. The time from the start of green to the start of yellow
 - B. One complete rotation through all signal indications**
 - C. The time required for pedestrian clearance
 - D. The time between successive vehicle arrivals
2. Which type of signal operation uses detectors only on minor approaches?
 - A. Pre-timed
 - B. Semi-actuated**
 - C. Fully-actuated
 - D. Demand-responsive
3. With a protected left-turn:
 - A. The turn is made across opposing traffic
 - B. Drivers may turn only when a solid green arrow is displayed**
 - C. The signal uses only circular indications
 - D. The turn is allowed unless prohibited by a sign
4. Increasing the number of phases generally results in:
 - A. Lower lost time
 - B. Higher intersection capacity
 - C. Increased total lost time**
 - D. Reduced pedestrian exposure
5. The purpose of the all-red interval is to:
 - A. Provide more time for pedestrians
 - B. Allow vehicles that entered at the end of yellow to clear the intersection**
 - C. Warn drivers that red is coming
 - D. Increase the cycle length for coordination
6. With a permissive yellow law, drivers:
 - A. Can legally cross the intersection if the front axle crosses the stop line during yellow**
 - B. Can't be in the intersection during yellow
 - C. Can enter on red
 - D. Must stop in response to yellow

7. A critical lane group has 900 veh/hr and saturation flow 1800 veh/hr. What is v/s ?
- A. 0.25
 - B. 0.40
 - C. 0.50
 - D. 0.75
8. Find the optimum cycle length if the lost time is 16 seconds per cycle and the sum of flow ratios is 0.68.
- A. 60 sec
 - B. 90 sec
 - C. 120 sec
 - D. 150 sec
9. What is an appropriate walking speed in pedestrian signal timing design?
- A. 3.5 ft/sec - 4.0 ft/sec
 - B. 4.5 ft/sec - 5.0 ft/sec
 - C. 5.5 ft/sec - 6.0 ft/sec
 - D. 6.5 ft/sec - 7.0 ft/sec
10. Left-turn treatment may be determined based on all of the following criteria except:
- A. Left-turning volume
 - B. History of crashes
 - C. Number of left-turn lanes
 - D. Pedestrian volume