Module 3-2 tutorial
Questions

Austroads

Traffic analysis concepts

Question 1. Determine the spare capacity at a signalised intersection with a intersection flow ratio of 0.65 under the following scenarios:

i. Intersection lost time per cycle = 0.167 minute
ii. Intersection lost time per cycle = 0.25 minute
iii. Intersection lost time per cycle = 0.333 minute

Answer the following:

a) Are the calculated spare capacity values similar to the ones obtained from the graph shown on slide 12 of the webinar?
b) Observe the trend in the calculated spare capacity values, as the intersection lost time per cycle increases. Comment whether the trend makes sense or not.

Question 2. A 3-lane highway with an FFS of 25 m/s is observed to have a VCR of 0.75. Determine its LOS. Assume the LOS which is closer to the observed VCR value.

Question 3. Select the right answer:

An urban arterial in Adelaide (with an BFFS of 60 km/h) suffers from poor traffic flow stability during AM peak.

Answer the following:

The arterial has an LOS ____ with prevailing speed in the range ____ and ____ km/h (rounded to the nearest whole number).

i. C, 30, 40 ii. D, 24, 30

iii. E, 18, 24 iv. None of these