8 Fauzia Khan et al.

Table F: List of Selected Scenarios for Safety Testing of ADS using D1 -  $\mathcal{O}_{d1}$ 

G3	Following Lead Vehicle  Crossing Path	Ego vehicle approaching slower lead vehicle Turning lead vehicle Inattentive, Rear Stutter Stop Oncoming vehicle turns right at signalized junction Sirens Entering a roundabout with another vehicle Left Turn Clip Wrong Driveway Run Red Into Left Turner	$S_{17}$ $S_{18}$ $S_{19}$ $S_{20}$ $S_{25}$ $S_{29}$ $S_{28}$ $S_{30}$ $S_{31}$	28 26 23 23 28 28 28 27 26	1 2 3 3 4 4 5
G3	Lead Vehicle  Crossing	Inattentive, Rear Stutter Stop Oncoming vehicle turns right at signalized junction Sirens Entering a roundabout with another vehicle Left Turn Clip Wrong Driveway Run Red Into Left Turner	$S_{19}$ $S_{20}$ $S_{25}$ $S_{29}$ $S_{28}$ $S_{30}$	23 23 28 28 28 27	3 3 4 4
G5	Crossing	Stutter Stop Oncoming vehicle turns right at signalized junction Sirens Entering a roundabout with another vehicle Left Turn Clip Wrong Driveway Run Red Into Left Turner	$S_{20}$ $S_{25}$ $S_{29}$ $S_{28}$ $S_{30}$	23 28 28 27	3 4 4
(25	0	Oncoming vehicle turns right at signalized junction Sirens Entering a roundabout with another vehicle Left Turn Clip Wrong Driveway Run Red Into Left Turner	$S_{25}$ $S_{29}$ $S_{28}$ $S_{30}$	28 28 27	4 4
(25	0	Sirens Entering a roundabout with another vehicle Left Turn Clip Wrong Driveway Run Red Into Left Turner	$S_{29} \\ S_{28} \\ S_{30}$	28 27	4
(25	0	Entering a roundabout with another vehicle Left Turn Clip Wrong Driveway Run Red Into Left Turner	$S_{28} = S_{30}$	27	_
(25	0	Left Turn Clip Wrong Driveway Run Red Into Left Turner	$S_{30}$		5
(25	0	Wrong Driveway Run Red Into Left Turner		26	
(25	0	Run Red Into Left Turner	$S_{31}$		6
	Path			26	6
			$S_{33}$	26	6
		Misjudgment, Left Turn	$S_{34}$	26	6
		Wave to Go	$S_{32}$	23	7
1		Navigating on an empty roundabout	$S_{27}$	22	8
		Ego vehicle turns right with oncoming vehicle at signalized junction	$S_{26}$	21	9
	Lane Change	Cut-in in front of the ego vehicle	$S_4$	28	10
		Cut-out in front of the ego vehicle	$S_7$	28	10
		Vehicle swerving towards ego vehicle	$S_8$	28	10
		Vehicle backing up into the ego vehicle	$S_9$	28	10
		Impassable object on intended path	$S_{10}$	28	10
90		Object road with incoming traffic	$S_{12}$	28	10
G2		Driving straight	$S_{13}$	28	10
		U-Turn	$S_{16}$	28	10
		Ego performing lane change with the vehicle behind	$S_5$	24	11
		Ego merging into an occupied lane	$S_6$	24	11
		Passable object on intended path	$S_{11}$	24	11
		Avoidance, Rear	$S_{14}$	24	11
		Lane Change, Rear.	$S_{15}$	24	11
	Opposite	Oncoming vehicle swerving into ego vehicle's lane	$S_{64}$	28	12
	Direction	Oncoming vehicle	$S_{65}$	28	12
	Pedestrian Interaction	Jaywalking	$S_{36}$	27	13
		Pedestrian crossing at zebra crossing	$S_{37}$	27 27	13 13
		Pedestrian running a red light Struck Human	$S_{41}$	27	13
		Pedestrian stationary at road side	$S_{45}$	26	13
(27		Pedestrian stationary at road side  Pedestrian walking along the road	S <sub>39</sub>	26	14
		Pedestrian at left turn at signalized junction	$S_{40}$	25	15
		Pedestrian in same direction obstructed at ego left turn	$\frac{S_{42}}{S_{43}}$	25	15
		Zebra crossing	$S_{38}$	23	16
		Pedestrian at right turn at signalized junction	S <sub>44</sub>	20	17
	Cyclist Interaction	Cyclist crossing from left side at signalized junction	$S_{46}$	25	18
		Cyclist crossing from right side at signalized junction	S46 S47	25	18
		Ego vehicle approaching cyclist riding in same direction	S48	25	18
		Ego vehicle driving alongside a cyclist	S48 S49	25	18
		Cyclist and ego vehicle driving in opposite direction	$S_{50}$	25	18
		Cyclist turning left and ends up in lane of ego vehicle	S <sub>56</sub>	25	18
		Cyclist turning left and ends up in lane of ego vehicle	S <sub>57</sub>	25	18
		Entering a roundabout with a cyclist Interaction	S <sub>54</sub>	24	19
		Leaving a roundabout with a cyclist	S <sub>55</sub>	24	19
		Cyclist at left turn at signalized junction	$S_{51}$	23	20
		Cyclist driving in same direction obstructed at ego left turn	$S_{52}$	23	20
		Cyclist at right turn at signalized junction	$S_{53}$	18	21