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[Introduction to Self-Driving Cars](https://www.coursera.org/learn/intro-self-driving-cars/home/welcome)

[Week 1](https://www.coursera.org/learn/intro-self-driving-cars/home/week/1)

Module 1: Graded Quiz

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QUIZ • 50 MIN

## Module 1: Graded Quiz

Review Key Concepts

Submit your assignment

DUE DATEOct 19, 9:59 AM +03

ATTEMPTS4 every 8 hours

Try again

Receive grade

TO PASS80% or higher

Grade

83.33%

View Feedback

We keep your highest score

**Module 1: Graded Quiz**

Graded Quiz • 50 min

Due Oct 19, 9:59 AM +03

Congratulations! You passed!

TO PASS 80% or higher

Keep Learning

GRADE

83.33%

#### Module 1: Graded Quiz

LATEST SUBMISSION GRADE

83.33%

1.

Question 1

Scenario 1: You’re at home and need to drive to work



During the trip, you will be performing OEDR tasks. Of the tasks below, which of the following is not an example of OEDR?

1 / 1 point

Stopping at a red light

Slowing down when seeing a construction zone ahead

Maintaining a distance to a vehicle ahead

Pulling over upon hearing sirens

Correct

Correct! Maintaining distance is not a detection and reaction procedure, it is a normal driving behavior.

2.

Question 2

Which of the following tasks are associated with perception?

1 / 1 point

Planning routes on a map

Responding to traffic lights

Identifying road signs

Correct

Correct! Identifying road signs are associated with perception

Estimating the motion of other vehicles

Correct

Correct! Estimating the motion of other vehicles is associated with perception

3.

Question 3

Before leaving, you decide to check the weather. The forecast states that over the next few days there will be both sun and rain along with some fog. Assuming your vehicle exhibits Level 5 autonomy, which of the following weather conditions can your vehicle operate?

1 / 1 point

Clear and sunny

Windy heavy rainfall

Heavy Fog

Light rainfall

All of the above

Correct

Correct! Level 5 autonomy can operate in any weather condition.

4.

Question 4

You enter your autonomous vehicle and it drives your usual route to work. While the vehicle is driving, you decide to take a nap. For which levels of autonomy is this safe? (Select all that apply)

1 / 1 point

1

2

3

4

Correct

Correct! Only level 4 and 5 autonomy can handle emergencies autonomously.

5

Correct

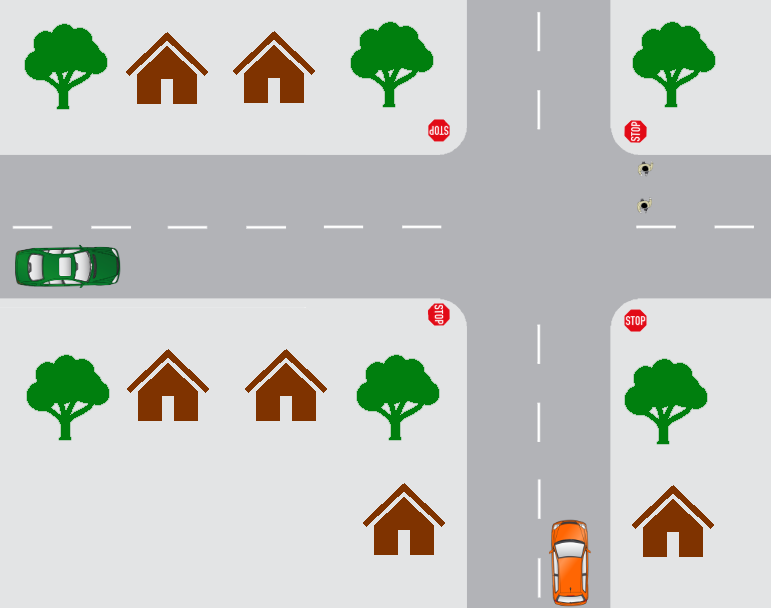
Correct! Only level 4 and 5 autonomy can handle emergencies autonomously.

5.

Question 5

Scenario 2: (Assume the car is driving on the right-hand side of the road) .

You’re approaching an all ways stop sign and you want to make a right turn. Your vehicle is denoted in orange. There are 2 pedestrians currently crossing and another vehicle (denoted in green) approaching the stop sign from the left.



This task involves multiple considerations, which of them are predictive planning? Select all that apply.

1 / 1 point

The green car arrives at the stop sign after you and plans to travel straight through the intersection. You choose to move first.

Correct

Correct! Predictive planning deals with planning based on predictions of the actions of others.

Wait for the pedestrians to finish crossing before turning

Correct

Correct! Predictive planning deals with planning based on predictions of the actions of others.

Gradually decelerate while reaching the stop sign

At a stop sign, stop and look both ways before proceeding

6.

Question 6

Here are some rules for driving at a stop sign. Which of the following is an appropriate priority ranking?

1) For non all-way stop signs, stop at a point where you can see oncoming traffic without blocking the intersection

2) If there are pedestrians crossing, stop until they have crossed

3) If you reach a stop sign before another vehicle, you should move first if safe

1 / 1 point

1, 2, 3

3, 2, 1

2, 1, 3

3, 1, 2

1, 3, 2

Correct

Correct! Prioritize safety.

7.

Question 7

Which of the following are off-road objects? (Select all that apply)

1 / 1 point

Pedestrians

Trees

Correct

Correct! These are examples of off road objects.

Stop signs

Correct

Correct! These are examples of off road objects.

Road markings

Curbs

Correct

Correct! These are examples of off road objects.

8.

Question 8

Suppose your vehicle has lane keeping assistance, which of these objects are relevant for its performance? (Select all that apply)

1 / 1 point

Stop signs

Pedestrians

Road markings

Correct

Correct! Detecting road markings and curbs are needed for lane keeping.

Curbs

Correct

Correct! Detecting road marks and curbs are needed for lane keeping.

Trees

9.

Question 9

Which of the following sensors are used for the lane keeping assistance? (Select all that apply)

1 / 1 point

GPS

Correct

Correct! Detection and localization is needed for lane keeping.

Barometers

LIDAR

Correct

Correct! Detection and localization is needed for lane keeping.

Cameras

Correct

Correct! Detection and localization is needed for lane keeping.

IMU

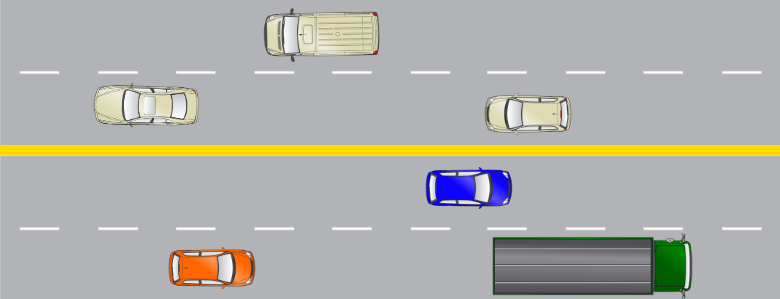
Correct

Correct! Detection and localization is needed for lane keeping.

10.

Question 10

Scenario 3: You are on the highway and you see a truck in front of you. Assume the car is driving on the right-hand side of the road. There is also a blue car beside the truck in the other lane.



Your vehicle follows the truck and maintains a constant distance away. What kind of control is this?

1 / 1 point

Lateral

Fallback

Longitudinal

OEDR

Correct

Correct! Distance keeping is a longitudinal control problem.

11.

Question 11

You decide to change lanes to pass a truck. What kind of decision is this?

1 / 1 point

Short term planning

Reactive

Long term planning

Immediate

Rule-based planning

Correct

Correct! Lane changing is a short term task.

12.

Question 12

Which of the following tasks are rule-based planning? (Select all that apply)

1 / 1 point

During a lane change, maintain our current speed or accelerate slightly

Correct

Correct! Rule based planning only considers the present state, not what vehicles will do next.

If there are vehicles directly beside us on the lane, it is unsafe to lane change.

Correct

Correct! Rule based planning only considers the present state, not what vehicles will do next.

If the vehicle in front is going to slow down sharply, then avoid performing a lane change.

13.

Question 13

Suppose the blue vehicle suddenly brakes and you decide to abort the lane change. If your vehicle can respond automatically and remain in its own lane, what is the minimum level of autonomy of your vehicle?

1 / 1 point

1

3

5

2

4

Correct

Correct! Level 3 autonomy can perform OEDR.

14.

Question 14

The blue vehicle returns to normal speed and you can now safely change lanes. Your car is performing the lane change, what kind of control is this?

0 / 1 point

Longitudinal

Fallback

Lateral

OEDR

Incorrect

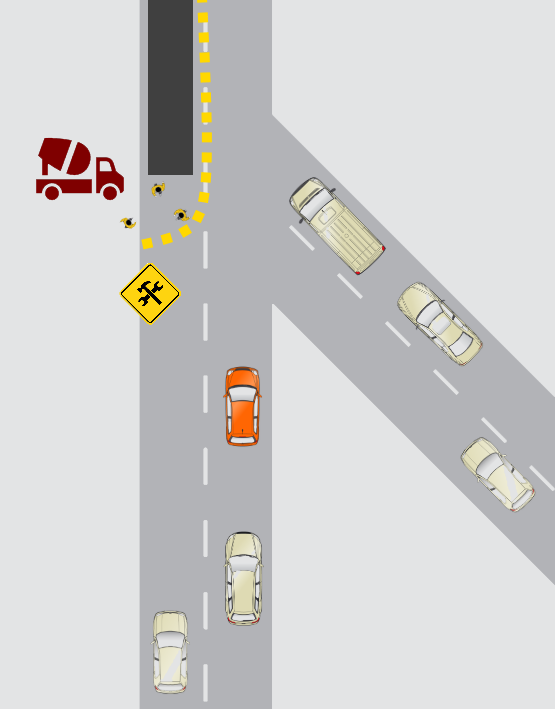
Incorrect. Please review types of control in lecture 1 on Taxonomy of Driving Automation.

15.

Question 15

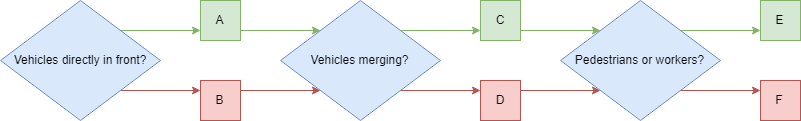
Scenario 4: You are almost at work but encounter a construction site.

Assume the car is driving on the right-hand side of the road. Your vehicle is denoted in orange.



You see a construction site where the workers are repaving a road full of potholes. They are using jackhammers which can cause dust clouds.

You create the following decision tree for getting through the construction site. From the diagram, which of the following decisions should you make? (green is true, red is false)



1 / 1 point

A (True)

B (False)

Correct

Correct!

C (True)

Correct

Correct!

D (False)

E (True)

Correct

Correct!

F (False)

16.

Question 16

Here are a set of rules for making these decisions, arrange them in an appropriate prioritization.

1) If there are no vehicles ahead, accelerate to the speed limit

2) Drive slowly in construction zones

3) If there are pedestrians or workers directly ahead in the current lane, stop

4) Yield to merging vehicles, if necessary

1 / 1 point

1, 2, 3, 4

2, 3, 4, 1

3, 4, 1, 2

3, 4, 2, 1

Correct

Correct! Prioritize safety in each case, yielding to pedestrians and then vehicles first, before defining acceptable travel speed.

17.

Question 17

Scenario 5: You’re finished work and need to drive back home, but it’s nighttime.



You plan a new path home on your GPS application to avoid the construction site, what type of planning is this?

0 / 1 point

Short term planning

Reactive

Rule based planning

Long term planning

Immediate

Incorrect

Incorrect. Please review types of planning in lecture 3 on Driving Decisions and Actions.

18.

Question 18

Your new path goes through a school zone and you see the school zone sign. You decide to slow down despite there being no pedestrians or children (it’s nighttime). What sort of planning is this?



0 / 1 point

Short term planning

Rule based planning

Long term planning

Reactive planning

Immediate planning

Incorrect

Incorrect. Please review types of planning in lecture 3 on Driving Decisions and Actions.