✅ **¡Felicitaciones! ¡Aprobaste!**

Calificación recibida 100 %   **Para Aprobar** 80 % o más

Ir al siguiente elemento

Lesson 2: Practice Quiz

Puntos totales 5

---

1. Which of the following tasks are associated with perception? (Select all that apply)   `1 / 1 punto`

☐ Planning routes on a map

☑ Identifying road signs

> ✅ **Correcto**
> Correct, perception deals with object identification.

☐ Responding to traffic light state changes

☑ Estimating the motion of other vehicles

> ✅ **Correcto**
> Correct, perception deals with position and motion estimation.

---

2. Which of the following can be on road objects? (Select all that apply)   `1 / 1 punto`

☑ Potholes

> ✅ **Correcto**
> Correct, potholes in the drivable surface are on road objects.

☐ Stop signs

☐ Sidewalks

☑ Vehicles

> ✅ **Correcto**
> Correct, vehicles can be on road objects. They can also be off road.

---

3. Which of the following tasks pose challenges to perception? (Select all that apply)   `1 / 1 punto`

☑ Handling sensor occlusion and reflection

> ✅ **Correcto**

☑ Having sensors work in adverse weather conditions

> ✅ **Correcto**

☑ Detecting, tracking and predicting dynamic object motions

> ✅ **Correcto**

☑ Handling sensor uncertainty

✓ **Correcto**

4. Which of the following sensors are used for ego localization? (Select all that apply)

1 / 1 punto

☑ Global Navigation Satellite System (GNSS)

✓ **Correcto**
Correct, a GNSS sensor provides position and velocity measurements, and can be used to estimate vehicle position and orientation for localization.

☐ Radar

☐ Barometers

☑ Inertial Measurement Unit (IMU)

✓ **Correcto**
Correct, an IMU provide acceleration and rotation rate measurements from accelerometers and gyroscopes, and can be used to estimate vehicle orientation and aid in localization in general.

5. Which of the following objects would be relevant for perception in adaptive cruise control?

1 / 1 punto

○ Road signs

○ Lane markings

○ Traffic lights

◉ Other vehicles

✓ **Correcto**
Correct, adaptive cruise control detects vehicles ahead to control speed and to maintain safe driving distances.