

Automotive Electrical and Engine Performance 9th Edition
Chapter 23 – Advanced Driver Assist Systems (ADAS)
Multiple Choice Questions Quiz A

1. Which component in a parking-assist system is primarily responsible for detecting nearby objects?

- a) Radar sensors
- b) Ultrasonic sensors
- c) Electromagnetic sensors
- d) Infrared cameras

2. Technician A says that adaptive cruise control (ACC) adjusts vehicle speed based on the distance to the car in front. Technician B says that ACC requires the driver to apply brakes manually if the vehicle ahead suddenly slows. Who is correct?

- a) Technician A only
- b) Technician B only
- c) Both Technicians A and B
- d) Neither Technician A nor B

3. A rear cross-traffic warning (RCTW) system is designed to:

- a) Prevent a vehicle from moving forward if an object is detected
- b) Alert the driver of approaching vehicles from either side when in reverse
- c) Adjust the side mirrors automatically
- d) Activate the brakes when a pedestrian is detected

4. In a blind spot monitoring (BSM) system, a warning may be delivered to the driver through:

- a) A chime or beep only
- b) A tactile alert in the steering wheel
- c) A visual indicator on the side mirror
- d) Any of the above

5. Which of the following conditions will likely cause a radar cruise control system to deactivate temporarily?

- a) Low tire pressure
- b) High engine temperature
- c) Ice or debris covering the radar sensor
- d) Headlights turned off

6. The purpose of lane keep assist (LKA) is:

- a) To adjust vehicle speed based on lane curvature
- b) To warn the driver if the vehicle is drifting out of its lane and, if needed, steer it back
- c) To automatically activate the brakes if the vehicle approaches another lane
- d) To keep the vehicle in the center of the lane at all times

7. Automatic emergency braking (AEB) uses which type of sensor to detect possible collisions?

- a) Only radar
- b) Cameras and ultrasonic sensors only
- c) Radar, sonar, and/or cameras
- d) GPS-based sensors

8. Which system function is specifically designed to monitor the distance to the vehicle in front and adjust speed accordingly?

- a) Lane departure warning (LDW)
- b) Blind spot monitoring (BSM)
- c) Adaptive cruise control (ACC)
- d) Rear cross-traffic alert (RCTW)

9. Self-parking systems rely on which two main components to position a vehicle into a parking space?

- a) Side mirrors and GPS
- b) Cameras and electric power steering
- c) Radar sensors and brake control
- d) ABS and traction control systems

10. A pre-collision system (PCS) typically performs which function if a collision appears imminent and the driver does not react?

- a) Disables adaptive cruise control
- b) Automatically steers the vehicle around the obstacle
- c) Activates full braking power to reduce speed as much as possible
- d) Sends a signal to other vehicles in the vicinity

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Answer Key Quiz A

Correct Answers:

1. b
2. a
3. b
4. d
5. c
6. b
7. c
8. c
9. b
10. c