

Human Health and Automotive Technology

Automotive Technology · Answer Key · 18 Questions

1. What is the primary function of a seat belt in relation to human inertia during a sudden stop?

- A) To increase body weight
- B) To prevent the body from continuing forward motion**
- C) To cool down the passenger
- D) To provide lumbar support

2. Which human organ is most vulnerable to the high-frequency vibrations caused by long-term driving?

- A) The liver
- B) The spine**
- C) The spleen
- D) The thyroid

3. What is the main health benefit of modern adjustable car headrests?

- A) Preventing whiplash injuries**
- B) Reducing eye strain
- C) Improving lung capacity
- D) Monitoring heart rate

4. How do automotive air conditioning systems help maintain driver health?

- A) By filtering out airborne pollutants**
- B) By increasing oxygen levels
- C) By dehydrating the cabin
- D) By generating artificial sunlight

5. What is the medical term for the neck injury often caused by sudden vehicle deceleration?

- A) Carpal tunnel syndrome
- B) Whiplash**
- C) Tendonitis
- D) Scoliosis

6. Why are interior materials in vehicles tested for volatile organic compounds (VOCs)?

- A) To ensure they do not cause respiratory irritation**
- B) To make the car go faster
- C) To increase fuel economy
- D) To improve radio reception

7. Which part of the human body is most effectively protected by a modern airbag deployment?

- A) The feet
- B) The head and torso**
- C) The fingernails
- D) The ankles

8. What physical symptom can be triggered by the repetitive vibration of a steering wheel over many hours?

- A) Nerve compression in the hands**
- B) Improved muscle tone
- C) Increased bone density
- D) Heightened sense of smell

9. What is the primary purpose of ergonomic car seat design regarding human health?

- A) To maintain natural spinal alignment**
- B) To prevent the driver from sleeping
- C) To make the car lighter
- D) To reduce the price of the vehicle

10. Which aspect of automotive lighting is designed to reduce eye fatigue for human drivers at night?

- A) High-intensity discharge color temperatures**
- B) Flashing red lights
- C) Purple dashboard lighting
- D) Strobe lighting

11. How does modern cruise control benefit driver health during long trips?

- A) By reducing leg muscle fatigue**
- B) By increasing blood pressure
- C) By preventing motion sickness
- D) By improving digestion

12. What is the main health risk associated with carbon monoxide buildup inside a vehicle cabin?

- A) Oxygen deprivation**
- B) Improved sleep quality
- C) Increased appetite
- D) Faster hair growth

13. Why do vehicles have cabin air filters that trap pollen and dust?

A) To reduce allergic reactions for passengers

B) To improve engine performance

C) To make the car smell like pine

D) To protect the radio

14. What type of light exposure do vehicle windshields filter to protect human skin?

A) Ultraviolet (UV) radiation

B) Gamma rays

C) Infrared heat only

D) Microwaves

15. What health benefit is provided by modern anti-lock braking systems (ABS) during emergency stops?

A) Prevention of loss of vehicle control

B) Increasing the driver's reaction speed

C) Providing a massage to the driver

D) Regulating the driver's heart rate

16. Why is the 'cockpit' of a car designed with reachable controls?

A) To minimize physical strain on the driver

B) To hide wires

C) To look modern

D) To increase the number of buttons

17. What is a common health-related consequence of poor vehicle seating posture over time?

A) Lower back pain

B) Increased height

C) Stronger teeth

D) Better vision

18. How does the sound insulation in a modern vehicle protect the driver's health?

A) By reducing long-term noise-induced hearing stress

B) By keeping the engine cool

C) By improving fuel efficiency

D) By making the car waterproof