

Introduction to Mechanical Engineering

Mechanical Engineering · Practice Test · 25 Questions

1. Which of these is considered a simple machine?

- A) Computer
- B) Lever
- C) Electric motor
- D) Toaster

2. What type of energy is stored in a stretched rubber band?

- A) Kinetic energy
- B) Nuclear energy
- C) Elastic potential energy
- D) Chemical energy

3. Which mechanical component is used to transmit rotational motion between two shafts?

- A) Gear
- B) Battery
- C) Spring
- D) Piston

4. What is the primary function of a lubricant in a mechanical system?

- A) To increase heat
- B) To reduce friction
- C) To generate electricity
- D) To store data

5. Which unit is commonly used to measure force?

- A) Newton
- B) Watt
- C) Joule
- D) Volt

6. What simple machine uses a wheel and a rope to lift heavy objects?

- A) Screw
- B) Wedge
- C) Pulley
- D) Inclined plane

7. Which material property describes a metal's ability to be hammered into thin sheets?

- A) Elasticity
- B) Malleability
- C) Conductivity
- D) Magnetic

8. What is the main purpose of a screw?

- A) To cut objects
- B) To hold materials together
- C) To conduct electricity
- D) To cool engines

9. Which of these is a type of energy produced by a moving object?

- A) Kinetic energy
- B) Potential energy
- C) Static energy
- D) Thermal energy

10. What mechanical device converts linear motion into rotary motion, commonly found in car engines?

- A) Crankshaft
- B) Belt
- C) Spring
- D) Nut

11. Which simple machine consists of a sloping surface used to raise objects?

- A) Pulley
- B) Wedge
- C) Inclined plane
- D) Lever

12. What do engineers call the point on which a lever pivots?

- A) Load
- B) Fulcrum
- C) Force
- D) Input

13. Which device is used to measure the temperature of a mechanical part?

- A) Barometer
- B) Thermometer
- C) Speedometer
- D) Anemometer

14. What is the force that opposes motion between two surfaces in contact?

- A) Gravity
- B) Friction
- C) Magnetism
- D) Inertia

15. Which of these components is used to store and release mechanical energy?

- A) Gear
- B) Spring
- C) Bolt
- D) Nut

16. What is the main function of an axle in a wheel-and-axle system?

- A) To act as a wedge
- B) To rotate with the wheel
- C) To store fuel
- D) To increase friction

17. Which form of energy is associated with the temperature of an object?

- A) Thermal energy
- B) Electrical energy
- C) Sound energy
- D) Light energy

18. Which of these is a rigid bar resting on a pivot?

- A) Lever
- B) Screw
- C) Wedge
- D) Gear

19. What type of machine is a pair of scissors?

- A) Compound machine
- B) Simple machine only
- C) Digital device
- D) Electronic engine

20. Which part of a machine is designed to prevent unwanted movement?

- A) Brake
- B) Motor
- C) Gear
- D) Shaft

21. What is the standard unit of power in the International System of Units (SI)?

- A) Watt
- B) Ampere
- C) Ohm
- D) Coulomb

22. Which simple machine is essentially an inclined plane wrapped around a cylinder?

- A) Screw
- B) Pulley
- C) Lever
- D) Wheel

23. What happens to the kinetic energy of an object when it slows down?

- A) It increases
- B) It decreases
- C) It disappears
- D) It becomes gravity

24. Which tool is used to tighten a nut or a bolt?

- A) Wrench
- B) Hammer
- C) Saw
- D) File

25. What is the main role of a gear train in a machine?

- A) To change speed or torque
- B) To generate heat
- C) To store electricity
- D) To stop a machine