

UNIT-I STEAM POWER PLANT

Fill in the Blanks

- In a steam power plant, the _____ converts water into steam.
Answer: Boiler
- The device used to convert the energy of steam into mechanical energy is called a _____.
Answer: Steam Turbine
- The generator converts mechanical energy into _____ energy.
Answer: Electrical
- The exhausted steam from the turbine is condensed in a _____.
Answer: Condenser
- The fuel commonly used in thermal steam power plants is _____.
Answer: Coal
- The feed water is supplied to the boiler by a _____ pump.
Answer: Feed
- The efficiency of a steam power plant is based on the _____ cycle.
Answer: Rankine
- The cooling water removes heat from the steam in the _____.
Answer: Condenser
- The device used to remove ash from flue gases is called an _____ precipitator.
Answer: Electrostatic
- The steam produced in the boiler is usually _____ before entering the turbine.
Answer: Superheated

Multiple Choice Questions

- Which component generates steam in a steam power plant?
 - A) Condenser
 - B) Boiler
 - C) Turbine
 - D) Generator

Answer: B) Boiler

- The working fluid in a steam power plant is:
 - A) Air
 - B) Water/Steam
 - C) Oil
 - D) Gas

Answer: B) Water/Steam

- Which cycle is commonly used in steam power plants?
 - A) Otto Cycle
 - B) Diesel Cycle
 - C) Rankine Cycle
 - D) Brayton Cycle

Answer: C) Rankine Cycle

- The function of a condenser is to:
 - A) Increase steam pressure
 - B) Convert steam into water
 - C) Generate electricity
 - D) Burn fuel

Answer: B) Convert steam into water

- The steam turbine converts:
 - A) Electrical energy into heat energy
 - B) Heat energy into mechanical energy
 - C) Mechanical energy into heat energy
 - D) Electrical energy into mechanical energy

Answer: B) Heat energy into mechanical energy

6. Which equipment converts mechanical energy into electrical energy?

- A) Boiler
- B) Condenser
- C) Generator
- D) Economizer

Answer: C) Generator

7. Superheated steam is produced in:

- A) Economizer
- B) Air Preheater
- C) Superheater
- D) Condenser

Answer: C) Superheater

8. Which fuel is most commonly used in thermal power plants?

- A) Wood
- B) Coal
- C) Kerosene
- D) Biogas

Answer: B) Coal

9. The feed water heater is used to:

- A) Cool steam
- B) Heat feed water
- C) Generate power
- D) Remove ash

Answer: B) Heat feed water

10. The final output of a steam power plant is:

- A) Steam
- B) Mechanical Power
- C) Heat Energy
- D) Electrical Energy

Answer: D) Electrical Energy