

1. Choose the correct answer. Write a letter (a–d) in each space.

1. The car moves faster _____ your foot presses the accelerator pedal.
a) that b) which c) than d) when
2. _____ the door opened, cold air entered the room.
a) As b) From c) To d) For
3. When the piston _____ down the chamber, it pushes oil along the pipes.
a) moved b) move c) moves d) moving
4. The worker pressed the button, _____ made the alarm sound.
a) because b) which c) when d) to
5. The petrol flows into the fuel tank, _____ it is stored until it is needed.
a) meanwhile b) where c) which d) as
6. The moving water turns the turbine, which _____ the electricity.
a) is generated b) generating c) to generate d) generates

2. Write a word from the box in each space.**linear / clockwise / reciprocating / oscillating**

7. The door opens when the key is turned _____.
8. The motion of a pendulum from side to side is _____.
9. The flow of water one way along a pipe is _____.
10. The two-way movement of a piston up and down is _____.

3. Match parts of phrases about car engines. Write a letter (A–F) in each space.

1. spark _____	A stroke
2. crank _____	B centre
3. intake _____	C plug
4. exhaust _____	D combustion
5. top dead _____	E shaft
6. internal _____	F valve

4. Write a word from the box in each space.

turbine, shaft, hydraulic, buoy, chamber, evaporator

- 17 The wave energy _____ moves on the surface of the sea.
- 18 A fluid (such as water or oil) is pushed under pressure along a _____ pipe.
- 19 The piston of the car engine moves up and down inside a sealed _____.
- 20 The _____ extracts heat from the air so cooler air can be blown into the building.
- 21 Sea water pushed through the pipes at high pressure makes the _____ rotate.
- 22 When a magnetic _____ moves inside a metal coil, it produces an electric current.

5. Complete the sentences with the correct form of the word in brackets.

1. The _____ of the shaft ensures smooth operation. (rotate)
2. This system improves energy _____ significantly. (efficient)
3. The gas undergoes rapid _____ during compression. (expand)
4. The process of _____ occurs inside the cylinder. (ignite)
5. The machine produces _____ motion. (oscillate)
6. Proper _____ reduces energy loss. (align)

6. Choose the correct answer (a, b, c, d).

Internal combustion engines rely **1** _____ the conversion of chemical energy **2** _____ mechanical energy. This process occurs **3** _____ a series of controlled explosions. The piston moves up and down **4** _____ the cylinder, while the crankshaft converts this motion **5** _____ rotary motion. Efficient operation depends **6** precise timing and correct alignment of components.

- | | | | |
|------------|---------|------------|---------|
| 1. a) in | b) on | c) at | d) by |
| 2. a) into | b) to | c) in | d) for |
| 3. a) by | b) with | c) through | d) from |
| 4. a) on | b) at | c) in | d) over |
| 5. a) to | b) into | c) for | d) with |
| 6. a) from | b) of | c) on | d) in |

7. Fill in the gaps with the correct word.

Wave power is a renewable energy source that utilizes the kinetic and potential energy of ocean waves. As waves move across the surface, they carry energy **1** _____ - long distances. This energy can be captured **2** _____ specialized devices. One common system is the oscillating water column, which uses air pressure changes to drive a turbine. The turbine converts mechanical energy **3** _____ electrical energy. However, efficiency is affected **4** _____ environmental factors such as wave height, speed, and direction. Engineers aim to optimize systems **5** _____ maximize output.

8. Choose the correct answer (a, b, c, d).

Wave energy has attracted increasing attention as a renewable power source. The first patent for a wave energy device **1** _____ in 1799 by Girard and son. Since then, hundreds of different designs **2** _____. Today, several commercial-scale projects **3** _____ around the world.

Currently, engineers **4** _____ a new oscillating water column system off the coast of Scotland. The device **5** _____ to withstand harsh ocean conditions. Last year, a smaller prototype **6** _____ in a controlled environment, and now real-sea trials **7** _____. If the trials prove successful, the first commercial array **8** _____ by 2030.

- | | | | |
|----------------------|-------------------|------------------------|---------------------|
| 1. a) filed | b) was filed | c) has filed | d) is filed |
| 2. a) have developed | b) were developed | c) have been developed | d) are developed |
| 3. a) operate | b) are operated | c) have operated | d) are operating |
| 4. a) are testing | b) are tested | c) test | d) have been tested |
| 5. a) designs | b) was designed | c) designed | d) is designed |
| 6. a) was tested | b) has tested | c) tested | d) is tested |
| 7. a) conduct | b) are conducted | c) have conducted | d) were conducted |
| 8. a) will build | b) is built | c) will be built | d) builds |