

Ques 6:- Write the short notes on;

(i) Spur Gear,

(ii) Helical Gear,

(iii) Rack and pinion,

(iv) Worm and worm gear,

Ans:- Spur Gear:- They are the simplest types of gear. They consist of a cylinder or disk with teeth projecting radially. Though the teeth are not straight-sided, the edge of each tooth is straight and aligned parallel to the axis of rotation.

(ii) Helical Gear:- They are one type of cylindrical gears with shanted tooth trace. Compared to spur gears, they have the larger contact ratio and excel in quietness and less vibration and able to transmit large force. A pair of helical gears has the same helix angle but the helix hand is opposite.

(iii) Rack and Pinion:- A rack and pinion is a type of linear actuator that comprise a circular gear engaging a linear gear, which operate to translate rotational motion into linear motion.

(iv) Worm and Worm Gear:- A worm drive is a gear arrangement in which a worm meshes with a worm gear. The two elements are also called the worm screw & worm wheel.