

Ques 3(1)

(a) According to the types of Energy Available at inlet- ϕ .

(i) Impulse turbine \rightarrow In an Impulse turbine, all the available energy of water is converted into Kinetic energy or velocity head.

Ex ϕ : Pelton wheel turbine.

(ii) Reaction turbine- ϕ In a reaction turbine, at the entrance to the runner, only a part of the available energy of water is converted into Kinetic energy and a substantial part remains in the form of pressure energy.

Ex ϕ : Francis turbines, Kaplan turbine.

(b) According to the Direction of flow through Runners: ϕ

(i) Radial flow turbines- ϕ In the turbine, the water flows along the radial direction.

Ex ϕ : Francis turbines.

(ii) Axial flow turbine- ϕ In this turbine, water flows through the runner wholly and mainly along the axis of

of rotation of the runner

Ex Kaplan turbine.

(C) According to the head at Inlet of turbine:→

(i) High head turbine:→ High head turbines are those which are Caplan of working under very high ranging more than 250 m.

Ex Pelton wheel turbine.

(ii) low head turbine:→ low head turbines are those which are capable of working under head less than 60 m.

Ex Kaplan turbine.

(d) According to the specific speed of the turbine's

(i) medium specific speed turbine's Ranging between 60 to 300.

Ex: Francis turbine.

(ii) High specific speed turbine's Ranging between 300 to 1000.

Ex Kaplan turbine