Moon.

First Quarter.

Earth

Solar tide

Sun

lunar tide

neap tide

last quarter

solar tide.

Earth

Moon

Sun

lunar tide

Spring tide

basin surface area A

high tide level

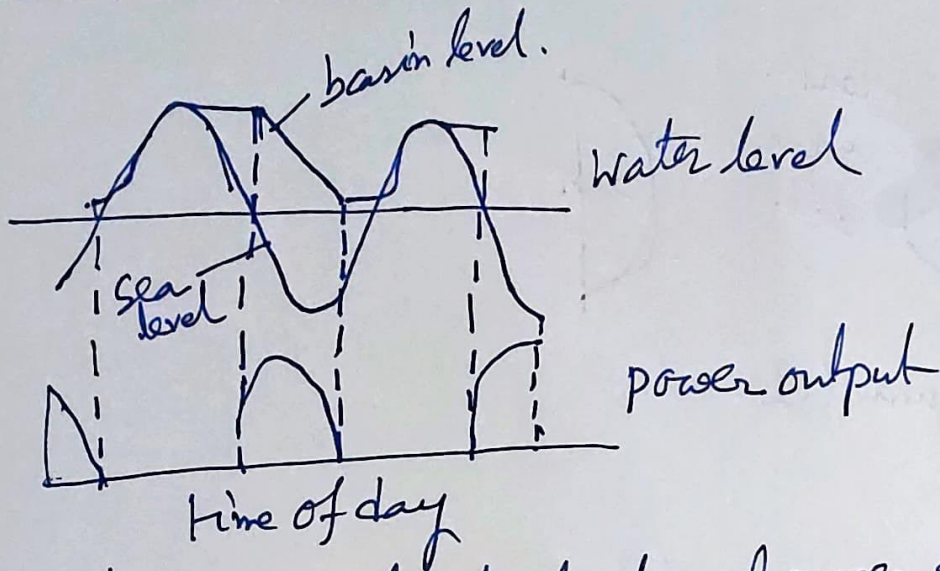range R

basin

sea

low tide level

Schematic diagram of water levels and power outputs for
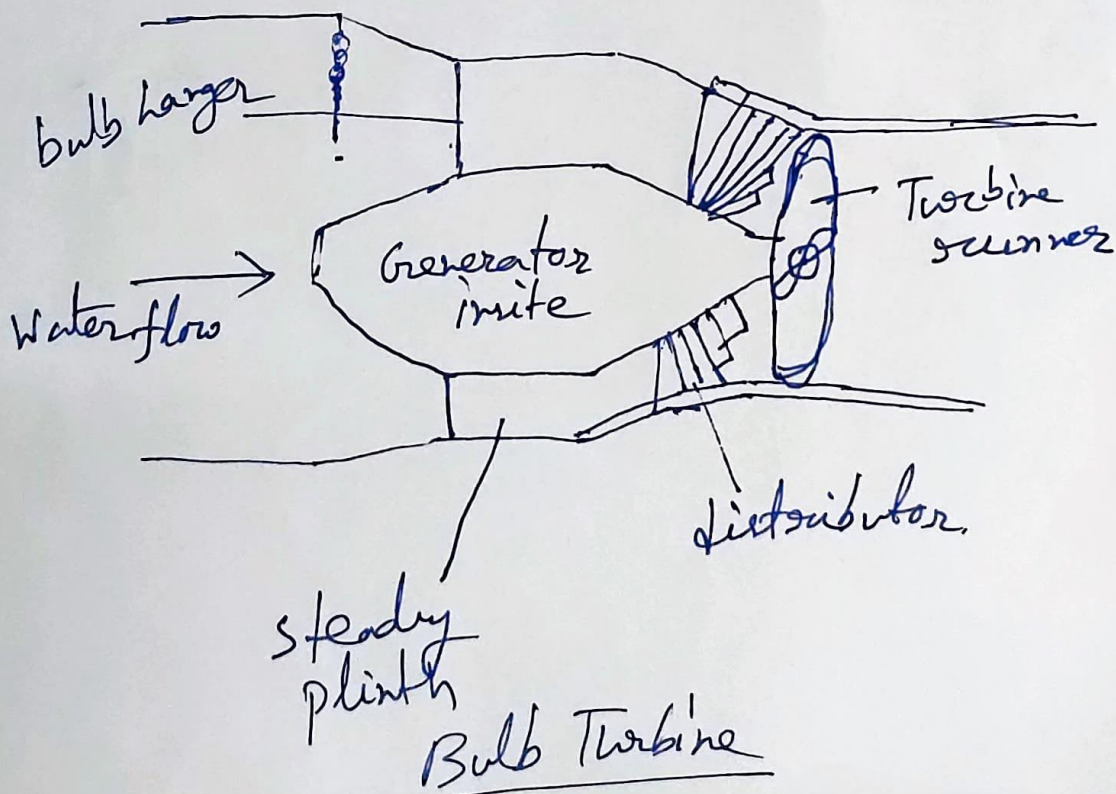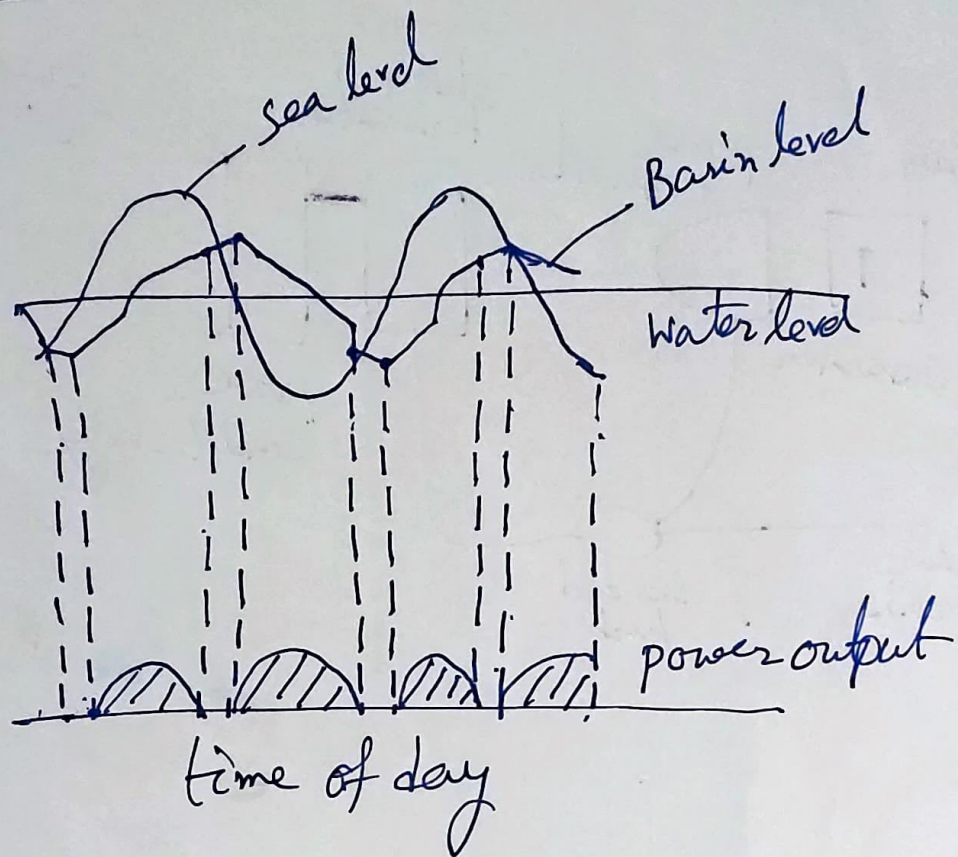an ebb generation scheme

basin level.

water level

sea
level

power output

time of day

Schematic diagram of water levels and power outputs for
a flood generation scheme

sea level

water level

basin
level

power output

time of day
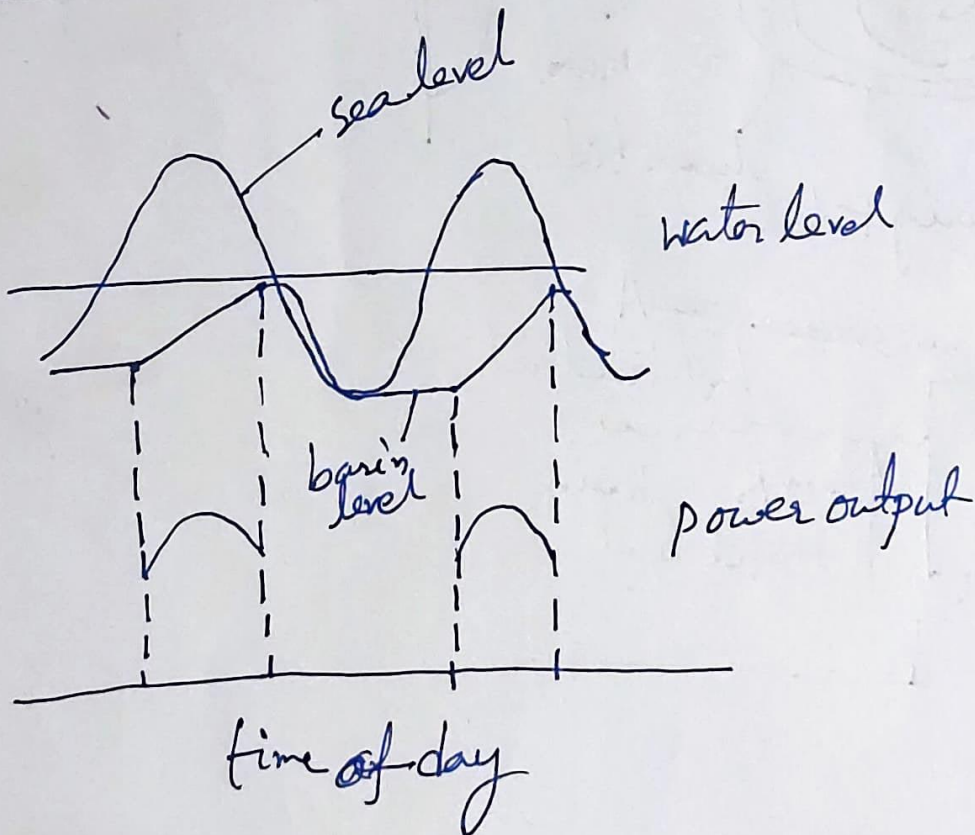
# Schematic diagram of water levels and power outputs for a two-way generation scheme ②



sea level

Basin level

water level

power output

time of day



bulb hanger

Waterflow

Generator insite

Turbine runner

distributor

steady plinth

**Bulb Turbine**

# Schematic layout of a typical tidal turbine system.

Primemover

Motion Conditioning

Power Converter

shore termination

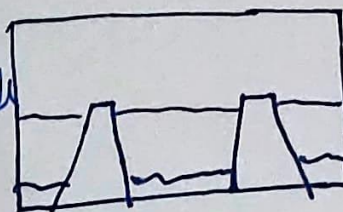grid

Generator

Other turbines
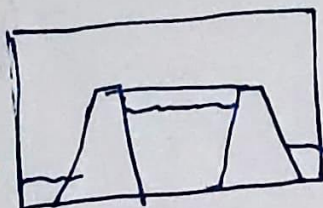
Seabed hub

Power Conditioning
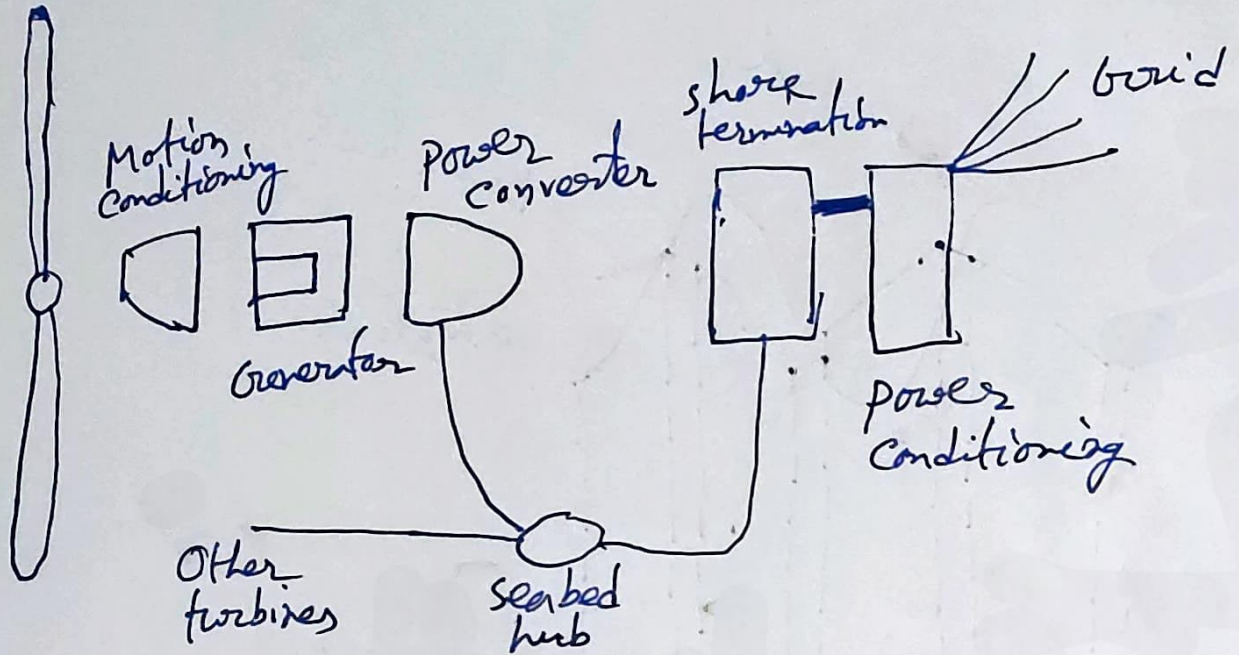
# Tidal lagoons (Bounded reservoir)

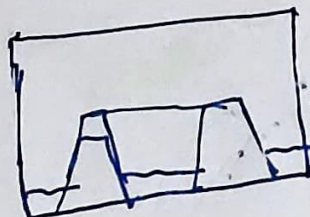Starting point
high tide, enclosure full
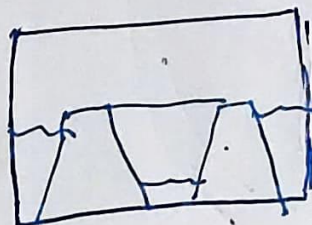
— high tide level
— low tide level

↓

Tide goes down
creating 'head'
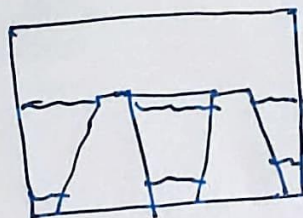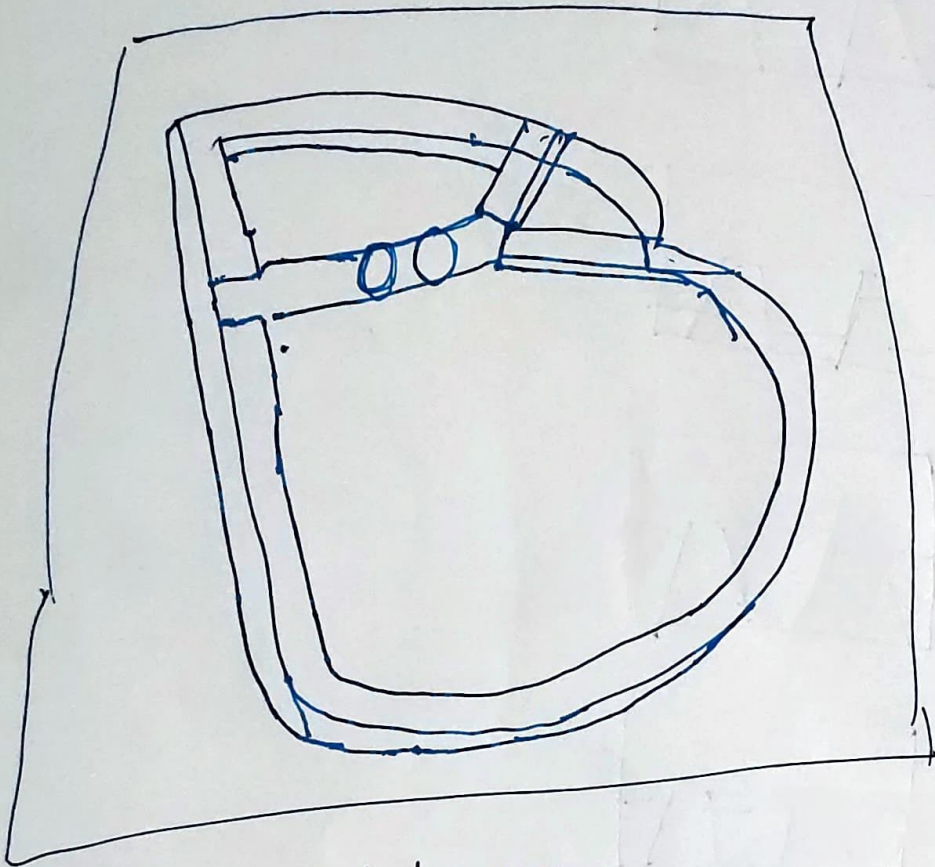↓
power generation

↓

low tide, no head

↓

tide goes up
creating 'head'

↓

power generation

↓

return to
starting point

Tidal lagoons