

### **RIVER MORPHOLOGY**

**Problem 1:** The 10 year average rainfall ( $P_{ave}$ ) and runoff coefficient ( $\alpha$ ) of  $182 \text{ km}^2$  area of river basin are given as 560 mm and 0.36, respectively. The elevation of water divide of the basin is 1800 m and the elevation of outlet of the basin is 1200 m. Determine annual water yield and average height of the basin.

**Problem 2:** The diversion weir will be constructed over a river with 830 m of bottom elevation. The total length of the river is 120 km through the spring and elevation of the spring is 940 m. Find the slope of the river.