

Wollo University
Kombolcha Institute of Technology
Department of Hydraulic & Water Resources Engineering

Hydraulic Structure-II (HWRE-3132) Assignment #1 (10%)
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- 1) What are spillways and where they are provided?
- 2) What are the different types of spillways and how they are selected for individual conditions?
- 3) How would you compute the discharge passing over an ogee spillway? Discuss the various factors affecting coefficient of discharge in the discharge equation.
- 4) What is meant by energy dissipator? Discuss the various methods used for energy dissipation below spillways.
- 5) Design a suitable section for the overflow portion of a concrete gravity dam having the d/s face sloping at 0.7H:1V. The design discharge for the spillway is 6000m³/s. The height of the spillway crest is kept at a level of 200m. The average riverbed level at the site is 140m. The spillway crest length consists of 5 spans having a clear width of 10m each. Thickness of each pier may be taken as 2.5m.