

Check list for oral examination

1. Hadley cells and the general circulation patterns
2. Global patterns of precipitation
3. The hydrology balance
4. Watershed delineation, river network terminology
5. Raingauges: functioning and errors
6. Computation of mean areal rainfall
7. Streamgauges: measurement of stream gage level
8. Streamgauges: concept of rating curve
9. Impact of deforestation, afforestation and reforestation on water budget: effect of climate
10. Impact of deforestation, afforestation and reforestation on runoff production during flood events
11. Forest hydrology and paired watersheds
12. Hortonian and Durnian processes for the generation of surface runoff
13. Soil water and hydraulic characteristics of the soil
14. Hydraulic conductivity and the Darcy law
15. The structure of the flood hydrograph
16. Base flow: concept and identification
17. The CN-SCS method for runoff computation
18. Land use properties as described in the CN method
19. Energy balance, radiation balance and the evapotranspiration fluxes
20. Interception as a function of vegetation structure and type: impact on the hydrologic balance
21. Potential and actual evapotranspiration
22. Main controls on leaf and canopy conductance
23. Penman equation for the quantification of evapo-transpiration fluxes
24. Priestley-Taylor equation
25. Budyko diagram