**Flood Management Final Examination**

Candidates should answer **three** essay questions, from the selection provided below.

1. Explain THREE of the following terms AND their significance for flood management and/or disaster management in Myanmar:
   1. Surface run-off
   2. Flood hazard map
   3. Hydraulic simulation
   4. Probalistic Forecasting
   5. Department of Hydrology and Meteorology
2. For any ONE past flood or cyclone event in Myanmar in the last 20 years, describe what caused the event including the hydrological, environmental, meteorological, institutional and/or social factors, and discuss the impacts of the event on specific areas in Myanmar including lessons learned, if any.
3. Compare and contrast the impacts of Cyclone Nargis in Myanmar with ONE international large-scale flood disaster, in any country other than Myanmar. Discuss any similarities as well as differences in factors causing the event, processes for management, and outcomes of the two.
4. What are the most common natural and anthropogenic processes that cause floods. Illustrate your answer with at least ONE example from a flood event.
5. Describe the steps for the development of an effective flood early warning system. Illustrate your answer describing the core elements necessary for a robust early warning system with at least ONE example applied to a flood event.
6. Discuss the differences in institutional responses to floods in 2015 compared to institutional response to Cyclone Nargis in 2008 using TWO or more specific government institutions in Myanmar as an example. Describe if any changes or reforms resulted because of these past flood events in the institutional response to floods in Myanmar.
7. What role should government institutions play in flood management in Myanmar in the future to address the current challenges. Discuss and describe a new Myanmar Water Framework Directive building on the example of the existing European Water Framework Directive.
8. The Sustainable Development Goal target 6.5 calls for ‘integrated water resources management at all levels’ by 2030. Describe the main challenges for achieving this target in the context of integrated flood management in Myanmar and explain how you think these challenges can be overcome.