

UNIVERSITY OF RUHUNA

BACHELOR OF SCIENCE IN FISHERIES AND MARINE SCIENCES DEGREE

Level III Semester II Examination

Dec/Jan 2015/2016

LIM 3221 – Hydrological Applications

Time – 01 hour

Answer for both the questions

1. (i) What is the ecological importance of natural flow regimes of a river system? (15 marks)
 - (ii) Develop a conceptual model diagram to illustrate the environmental impacts of a flood irrigation system. (15 marks)
 - (iii) “*Downstream vegetation pattern can be affected by dam construction*”, using suitable examples, justify the above statement. (20 marks)
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2. (i) Natural flood events are important for the integrity of aquatic ecosystems. Justify the above statement. (10 marks)
 - (ii) What are the methods used in flood control? (10 marks)
 - (iii) Describe the cost and benefits associate with flood controlling. (10 marks)
 - (iv) How does the above cost benefit analysis can be used to decide the minimum flood peak reduction? (20 marks)

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