

Candidates are admitted to the examination room ten minutes before the start of the examination. On admission to the examination room, you are permitted to acquaint yourself with the instructions below and to read the question paper.

Do not write anything until the invigilator informs you that you may start the examination. You will be given five minutes at the end of the examination to complete the front of any answer books used.

April 2011

Answer Book
General Data Sheet
Any bilingual English language dictionary permitted
Only Casio-fx83 calculators are permitted

THE UNIVERSITY OF READING

MSc Examination for Courses in Sciences

Hydrology and global environmental change

MTMG44

2 hours

Answer any TWO questions.

The marks for the individual components of each question are given in [] brackets. The total mark for the paper is 100.

1. “Everything we know about the hydrological cycle is constrained by what we can measure”. Discuss, with particular reference to the estimation of the components of the water balance at the scale of the small catchment.

[50 marks]

2. Describe the mechanisms of streamflow development in a typical catchment in southern England, and explain why a given input of rainfall does not always produce the same hydrological response.

[50 marks]

3. What factors might cause a trend in river flows in a catchment, and how would you seek to test alternative explanations?

[50 marks]

(End of Question Paper)