



UNIVERSITY EXAMINATIONS

FIRST YEAR EXAMINATION FOR THE AWARD OF DEGREE OF MASTER OF SCIENCE IN GEOGRAPHY

GEOG 763: WATERSHED MANAGEMENT

STREAM: M.SC(GEOG) Y1S2

TIME: 3 HOURS

DAY/DATE: FRIDAY 14/12/2012

2.30 P.M. – 5.30 P.M

INSTRUCTIONS:

**Answer all questions in section A and any two in section B.
Use illustrations where appropriate to reinforce your answers.**

SECTION A (30 MARKS)

1. (a) State where and in which forms fresh waters is found on the planet Earth. [3 Marks]
- (b) Explain the following terms:
 - (i) fossil water [1 Marks]
 - (ii) ecological water pollution [1 Marks]
 - (iii) water stress [1 Mark]
 - (iv) nonconsumptive water use [1 Marks]
2. (a) Explain one process through which surface water is naturally replenished and two processes through which it is naturally lost. [4 Marks]
- (b) Describe the components of the total volume of water transported downstream throughout the course of a river. [3 Marks]

3. Explain the adverse effects of the following processes:
- (i) underirrigation [1 Mark]
 - (ii) overfertilizing a water body with nitrogen [1 Mark]
 - (iii) use of herbicides and pesticides in farms [1 Mark]
 - (iv) widespread cloud seeding [1 Mark]
 - (v) overwithdrawal of ground water [1 Mark]
4. Write short notes on:
- (i) thermal pollution [1 Mark]
 - (ii) acid precipitation [1 Mark]
 - (iii) soil P^H in relation to nutrients [1 Mark]
 - (iv) mycorrhizae [1 Mark]
 - (v) water conflict [1 Mark]
5. Explain the necessity of a watershed analysis approach in land use. [6 Marks]

SECTION B (30 MARKS)

6. Citing examples, elaborate on the uses of fresh water. [15 Marks]
7. Discuss water diversions. [15 Marks]
8. Write an essay on hydroelectric power generation as a land use. [15 Marks]
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