Assignment 3

The due date for submitting this assignment has passed. Due on 2018-02-14, 23:59 IST.

Submitted assignment

1) Which of these would classify as sustainable quantitative use of a water resource:
   
   a) Quantity of Water Withdrawal ≈ Quantity of Water Recharge
   b) Quantity of Water Withdrawal > Quantity of Water Recharge
   c) Quantity of Water Withdrawal < Quantity of Water Recharge
   d) Either of a or b

   No, the answer is incorrect.
   Score: 0
   Accepted Answers:
   a) Quantity of Water Withdrawal ≈ Quantity of Water Recharge

2) One of the important aspects of sustainable development is:

   a) Water conservation
   b) Inter-generational resource equity
   c) Intra-generational resource inequity
   d) All of the above

   No, the answer is incorrect.
   Score: 0
   Accepted Answers:
   b) Inter-generational resource equity

3) In water resources development and management, priority should be given to:

   a) the deprived and unserved population
   b) those who can afford to pay at sustainable prices
   c) those who utilize water for the most financially beneficial uses
   d) the women consumers

   No, the answer is incorrect.
   Score: 0
   Accepted Answers:
   a) the deprived and unserved population

4) The capacity building mentioned in the Action Agenda under Dublin Statement signifies:

   a) Enhancing capacity of water distribution facilities
   b) Enhancing capacities of sewerage networks
   c) Development of educated, skilled and trained human resources
   d) All of the above

   No, the answer is incorrect.
   Score: 0
   Accepted Answers:
   c) Development of educated, skilled and trained human resources
No, the answer is incorrect.
Score: 0
Accepted Answers:
c) Development of educated, skilled and trained human resources

5) Sacrifice on ecological demands for fulfilling municipal demands is an example of trade-off between:
   - a) Ecological sustainability and Social concerns
   - b) Ecological sustainability and Financial sustainability
   - c) Social concerns and Economic sustainability
   - d) Ecological sustainability and Economic sustainability

No, the answer is incorrect.
Score: 0
Accepted Answers:
a) Ecological sustainability and Social concerns

6) Priority to domestic uses over high-value uses like industrial processes is an example of trade-off between:
   - a) Ecological sustainability and Social concerns
   - b) Ecological sustainability and Financial sustainability
   - c) Social concerns and Economic sustainability
   - d) Ecological sustainability and Economic sustainability

No, the answer is incorrect.
Score: 0
Accepted Answers:
c) Social concerns and Economic sustainability

7) Which of the following are likely to be conflicts in sustainable water management:
   - a) Raising water charges to help build superior water treatment and supply infrastructure
   - b) Raising environmental standards of waste discharge from the industries
   - c) Reduce access to freely available fresh water resources
   - d) All of these

No, the answer is incorrect.
Score: 0
Accepted Answers:
d) All of these

8) Encouraging water saving is typically a policy objective for:
   - a) Technological sustainability
   - b) Financial sustainability
   - c) Economic sustainability
   - d) Environmental Sustainability

No, the answer is incorrect.
Score: 0
Accepted Answers:
d) Environmental Sustainability

9) Consider the following 3 statements and identify which are included in the Dublin Statement on Water Sustainability:
   - Statement A: Fresh water is a finite and vulnerable resource
   - Statement B: Water should be prioritized to domestic sector
   - Statement C: Water management should involve all stakeholders’ participation
   - a) Statements A and B are correct, but C is not
   - b) Statements A and C are correct, but B is not
   - c) Statements B and C are correct, but A is not
   - d) All are correct

https://onlinecourses.nptel.ac.in/noc18_oe02/unit?unit=8&assessment=91
A total of 1400 mm annual rainfall on a catchment area of 500 hectares has net annual evapotranspiration and infiltration as 525 mm and 364 mm respectively. The runoff from the catchment is directed to a river which is being used as a water source for a town. In order to ensure sustainable flow in the river, the daily water withdrawal from the river should not be exceeding (Ignore any other water inflow to river):

- a) 4986 m$^3$/d
- b) 9438 m$^3$/d
- c) 7000 m$^3$/d
- d) 7190 m$^3$/d
24/07/2018

Water Economics And Governance - - Unit 4 - Week 3

Requirement for the City, if any, is to be met by pumping groundwater. Estimate how much water should be pumped daily from groundwater to ensure the target supply in dry weather flow season:

a) 432 MLD
b) 228 MLD
c) 172 MLD
d) 204 MLD

No, the answer is incorrect.
Score: 0
Accepted Answers:
d) 204 MLD

14 A sewage treatment plant (STP) releases 30 MLD of treated wastewater into a river of flow rate 5 m³/s where water travels for 20 hours before next withdrawal point. Natural decay decreases BOD in the water following first order with a rate constant of 0.014 h⁻¹. If the background BOD in the river is negligible before confluence point, and influent BOD of the sewage stream is 400 mg/L, what minimum percentage removal is required before discharge in the river, so that BOD at withdrawal point does not increase above 5 mg/L:

a) 50
b) 60
c) 75
d) 90

No, the answer is incorrect.
Score: 0
Accepted Answers:
c) 75