Assignment 7

The due date for submitting this assignment has passed. Due on 2018-03-14, 23:59 IST.

Submitted assignment

1) Among the steps given under for the economic analysis of water supply projects, which comes first:

- a) Identifying alternatives to meet the demand gap
- b) Demand analysis and demand forecasting
- c) Least cost analysis for alternative choices
- d) Economic and financial benefit-cost analysis

No, the answer is incorrect.
Score: 0

Accepted Answers:
- b) Demand analysis and demand forecasting

2) For a water supply project, in an ideal market economic scenario:

- a) Demand for water depends on the price charged
- b) Price to be charged depends on demand
- c) Both, a and b are true
- d) None of the a and b are true

No, the answer is incorrect.
Score: 0

Accepted Answers:
- c) Both, a and b are true

3) A real demand for the goods or services should be considered when:

- a) There is willingness to pay for the goods or services
- b) There is resources available to ensure supply of goods or services
- c) There is technology available to provide goods or services

No, the answer is incorrect.
Score: 0
4) Capital Recovery Factor (CRF) is used for:
- a) Getting depreciated value of a capital investment
- b) Obtaining ratio of project benefits to capital investments
- c) Converting a present value to an equivalent annual value
- d) None of the above

No, the answer is incorrect.
Score: 0
Accepted Answers:
- c) Converting a present value to an equivalent annual value

5) The response of consumers to changes in price is reflected through:
- a) The total willingness to pay
- b) The marginal willingness to pay
- c) The consumer surplus
- d) The price elasticity of demand

No, the answer is incorrect.
Score: 0
Accepted Answers:
- d) The price elasticity of demand

6) Identify the correct statement about discount rate from the statements given under:
- a) The future cash flows are independent of the discount rates
- b) The higher discount rate leads to the higher present value of future cash flows
- c) The higher discount rate leads to the lower present value of future cash flows
- d) None of the above

No, the answer is incorrect.
Score: 0
Accepted Answers:
- c) The higher discount rate leads to the lower present value of future cash flows

7) The willingness to pay could be determined by:
- a) Analyzing what others are already paying in similar circumstances for such goods or services
- b) Asking people to say what they would be willing to pay for the offered goods or services
- c) Using proxy measures from relevant case studies
- d) All of the above

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

8) The water demand is considered ‘elastic’ when:
- a) The price elasticity of demand for water > 0
- b) The price elasticity of demand for water < 0
- c) The price elasticity of demand for water > 1
- d) The price elasticity of demand for water < 1

No, the answer is incorrect.
9) The consumer surplus is defined as:

- a) The willingness to pay minus the cost
- b) The cost minus the willingness to pay
- c) The supply minus the demand
- d) The demand minus the supply

No, the answer is incorrect.

Score: 0

Accepted Answers:
- a) The willingness to pay minus the cost

10) A consumer availed total $x_1$ unit of water services at per unit price of $p_1$, where his willingness-to-pay was as shown in the figure shown below. The difference in the total area under the curve from $x = 0$ to $x_1$ and shaded area is:

- a) Consumer Surplus
- b) Producer Surplus
- c) Marginal willingness-to-pay for the $x_1^{th}$ unit of water
- d) Total willingness-to-pay for quantity $x_1$

No, the answer is incorrect.

Score: 0

Accepted Answers:
- a) Consumer Surplus

11) Ordinate $p_1$ (value of $p_1$) in the willingness-to-pay curve of previous question, represents:

- a) Consumer Surplus
- b) Producer Surplus
- c) Marginal willingness-to-pay for the $x_1^{th}$ unit of water
- d) Total willingness-to-pay for quantity $x_1$

No, the answer is incorrect.
12) In reference to Q. 10, the producer surplus can be estimated as:

- a) The shaded area
- b) The total area under the curve from x=0 to x₁
- c) The difference in the total area under the curve from x=0 to x₁ and shaded area
- d) Can’t be estimated without cost information

No, the answer is incorrect.

Score: 0

Accepted Answers:
- d) Can’t be estimated without cost information

13) For a supply-demand relation shown in the adjacent figure, identify the area under the curve, that depict price paid for a water demand of x₀:

- a) \( p₀ - A - x₀ - 0 - p₀ \)
- b) \( p₁ - A - p₂ - p₁ \)
- c) \( p₂ - A - x₀ - 0 - p₂ \)
- d) \( p₁ - A - x₀ - 0 - p₁ \)

No, the answer is incorrect.

Score: 0

Accepted Answers:
- a) \( p₀ - A - x₀ - 0 - p₀ \)

14) For the referred supply-demand relation in Q. 13, identify the area under the curve, that depict total willingness-to-pay for a water demand of x₀:

- a) \( p₁ - A - p₀ - p₁ \)
- b) \( p₁ - A - p₂ - p₁ \)
- c) \( p₂ - A - x₀ - 0 - p₂ \)
- d) \( p₁ - A - x₀ - 0 - p₁ \)

No, the answer is incorrect.

Score: 0

Accepted Answers:
- d) \( p₁ - A - x₀ - 0 - p₁ \)

15) For the referred supply-demand relation in Q. 13, identify the area under the curve, that depict the cost (to producer) of supplying \( x₀ \) water:

- a) \( p₀ - A - x₀ - 0 - p₀ \)
The 5 different proposed routes of a canal connecting rivers Par-Tapi-Narmada are to be compared using Incremental Benefit Cost Ratio approach. The estimates of net benefits and the total cost over the duration of the project for the following 5 proposed routes are as under:

- Route R1: Total Cost = Rs 219 lakhs; and Total Benefits = Rs 270 lakhs
- Route R2: Total Cost = Rs 340 lakhs; and Total Benefits = Rs 402 lakhs
- Route R3: Total Cost = Rs 246 lakhs; and Total Benefits = Rs 302 lakhs
- Route R4: Total Cost = Rs 294 lakhs; and Total Benefits = Rs 372 lakhs
- Route R5: Total Cost = Rs 282 lakhs; and Total Benefits = Rs 328 lakhs

For the link canal project, Incremental Benefit Cost Ratio for Route R4 over R3 is:

- a) 1.23
- b) 1.27
- c) 1.46
- d) 0.04

For the link canal project of Q.16, the proposed route with the least benefit cost ratio is:

- a) R1
- b) R2
- c) R4
- d) R5

For the link canal project of Q.16, the proposed route with the least incremental benefit cost ratio is:

- a) R1
- b) R2
- c) R4
- d) R5
19. For the link canal project of Q. 16, the most preferred canal route, if there is no restriction of budget:
   a) R1
   b) R3
   c) R4
   d) R5
   No, the answer is incorrect.
   Score: 0
   Accepted Answers:
   c) R4

20. For the link canal project of Q.16, the most preferred canal route, if the project budget can't exceed Rs 285 lakhs:
   a) R1
   b) R3
   c) R4
   d) R5
   No, the answer is incorrect.
   Score: 0
   Accepted Answers:
   b) R3