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
   - d) None of the above

No, the answer is incorrect.
Score: 0

Accepted Answers:
- a) There is willingness to pay for the goods or services

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:
- a) Getting depreciated value of a capital investment
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.
Score: 0
Accepted Answers:
c) The price elasticity of demand for water >|1|

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.
Score: 0
Accepted Answers:
c) Marginal willingness-to-pay for the $x_1^{th}$ unit of water

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 $x_1$
- c) The difference in the total area under the curve from $x=0$ to $x_1$ 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 $x_0$:
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 $x_0$:

- a) $p_0 - A - x_0 - 0 - p_0$
- b) $p_1 - A - p_0 - p_1$
- c) $p_2 - A - x_0 - 0 - p_2$
- d) $p_1 - A - x_0 - 0 - p_1$

No, the answer is incorrect.
Score: 0

Accepted Answers:
a) $p_0 - A - x_0 - 0 - p_0$

14 For the referred supply-demand relation in Q.13, identify the area under the curve, that depict the cost (to producer) of supplying $x_0$ water:

- a) $p_1 - A - p_0 - p_1$
- b) $p_1 - A - p_2 - p_1$
- c) $p_2 - A - x_0 - 0 - p_2$
- d) $p_1 - A - x_0 - 0 - p_1$

No, the answer is incorrect.
Score: 0

Accepted Answers:
d) $p_1 - A - x_0 - 0 - p_1$

15 For the referred supply-demand relation in Q.13, identify the area under the curve, that depict the cost (to producer) of supplying $x_0$ water:

- a) $p_0 - A - x_0 - 0 - p_0$
- b) $p_1 - A - p_2 - p_1$
- c) $p_2 - A - x_0 - 0 - p_2$
- d) $p_1 - A - x_0 - 0 - p_1$

No, the answer is incorrect.
Score: 0

Accepted Answers:
c) $p_2 - A - x_0 - 0 - p_2$

16 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

No, the answer is incorrect.
Score: 0
17. 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

No, the answer is incorrect.
Score: 0

Accepted Answers:

d) R5

18. 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

No, the answer is incorrect.
Score: 0

Accepted Answers:

b) R2

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