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NPTEL (<https://swayam.gov.in/explorer?ncCode=NPTEL>) » Energy Resources, Economics and Environment (course)



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Course outline

About NPTEL
()

How does an
NPTEL online
course work?
()

Week 1 -
Introduction
()

Week 2 -
Energy and
quality of life,
()

Week 6 : Assignment 6

The due date for submitting this assignment has passed.

Due on 2025-03-05, 23:59 IST.

Assignment submitted on 2025-03-04, 14:53 IST

1) Which is not a property of preferences?

1 point

- ☐ Completeness, Non Satiation
- ☐ Monotonicity
- ☐ Transitivity
- ☒ Additivity

Yes, the answer is correct.

Score: 1

Accepted Answers:

Additivity

2) Which of the following options is/are true for the indifference curve?

1 point

- ☐ The indifference curve represents a locus of varying utility for similar goods/services
- ☒ Indifference curves can never intersect but can be parallel
- ☐ Indifference curves can be upward sloping
- ☐ In some cases, the indifference curve is a thick curve

Yes, the answer is correct.

**Country
energy
balance ()**

**Week 3 -
Energy
Economics ()**

**Week 4 -
Energy
Resources ()**

**Week 5 - Non-
Renewable
Resource
Economics ()**

**Week 6 -
Preferences,
Utility and
Social
choices ()**

● Lecture 10:
Preferences
and Utility
(unit?
unit=69&lesson
=70)

● Lecture 11A:
Utility and
Social Choice -
Part 1 (unit?
unit=69&lesson
=71)

● Lecture 11B:
Utility and
Social Choice -
Part 2 (unit?
unit=69&lesson
=72)

● Lecture 11C:
Utility and
Social Choice -
Part 3 (unit?
unit=69&lesson
=73)

● Lecture 11D:
Utility and

Score: 1

Accepted Answers:

Indifference curves can never intersect but can be parallel

3) Which of the following is true?

[pg4 here](#)

1 point

- ☐ According to biocentrism, all non-humans have only instrumental value.
- ☐ According to biocentrism, all humans have only instrumental value.
- ☒ According to anthropocentrism, all non-humans have only instrumental value.
- ☐ According to biocentrism, only humans have intrinsic value.

Yes, the answer is correct.

Score: 1

Accepted Answers:

According to anthropocentrism, all non-humans have only instrumental value.

4) Which of the following are properties of the utility function?

1 point

- ☐ Independence
- ☐ Transitivity
- ☐ Continuity
- ☒ All the above properties

**Completedness
Increasing Function
Ordinal not Cardinal**

Yes, the answer is correct.

Score: 1

Accepted Answers:

All the above properties

5) Consider a utility function: $U(x_1, x_2) = x_1^2 + 4x_1 x_2 + 2x_2^2$

What is marginal rate of substitution at point P (3, 2), if point P lies on U (x_1, x_2)?

Round-off your answers to 2 decimal places.

0.7

Yes, the answer is correct.

Score: 1

Accepted Answers:

(Type: Range) 0.69,0.71

1 point

6) Supply curve for a commodity in the market is given as $P = 50 + 0.3Q$ and demand curves is given as $P = 110 - 0.3Q$, where P is price of commodity and Q is quantity of commodity. Find the quantity at market equilibrium point.

100

Yes, the answer is correct.

Score: 1

Accepted Answers:

(Type: Numeric) 100

1 point

Social Choice -
Part 4 (unit?
unit=69&lesson
=74)

Lecture 12:
Revision
Paper-1 (Part
1) (unit?
unit=69&lesson
=75)

Additional
Learnings
(unit?
unit=69&lesson
=76)

Weekly
Feedback
(unit?
unit=69&lesson
=78)

Quiz: Week 6 :
Assignment 6
(assessment?
name=211)

Week 7 -
Public and
private
goods,
Externalities
()

Week 8 -
Energy and
Financing ()

Week 9 -
Input-Output
Analysis ()

Text
Transcripts ()

Books ()

Download
Videos ()

7) The Supply curve and demand curves are same as in above question 6. What are the values of consumer's surplus and producer's surplus respectively. **1 point**

- ☒ 1500 units, 1500 units
☐ 1550 units, 1600 units
☐ 2000 units, 1800 units
☐ 1900 units, 1750 units

Yes, the answer is correct.
Score: 1

Accepted Answers:
1500 units, 1500 units

8) What will be the value of total surplus for question no. 7? **1 point**

- ☒ 3000 units
☐ 3150 units
☐ 3800 units
☐ 3650 units

Yes, the answer is correct.
Score: 1

Accepted Answers:
3000 units

9) Which of the following violate/violates the assumptions of the two theorems of Welfare Economics? **1 point**

- ☐ Legally enforceable property rights
☐ Atomistic participants
☐ Complete Information
☒ Positive transaction costs

Complete Property Rights
No Transaction Cost

Are the Rules

Yes, the answer is correct.
Score: 1

Accepted Answers:
Positive transaction costs

10) Which of the following principles or axioms is/are not connected to Arrow's Impossibility Theorem? **1 point**

- ☐ Transitivity, **Non Dictatorship, Independence of Irrelevant Activities, Universality**
☐ Completeness
☒ Non-satiation
☐ Unanimity

Yes, the answer is correct.
Score: 1

Accepted Answers:
Non-satiation

Anthropocentrism prioritizes human needs, often leading to resource exploitation and economic growth at nature's expense. Environmental protection is justified based on human benefits.

Biocentrism values all life forms equally, advocating for sustainable energy, eco-friendly economies, and conservation for nature's intrinsic worth.

The balance between both is crucial for sustainable development.