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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 11 : Assignment 11

The due date for submitting this assignment has passed.

Due on 2025-04-09, 23:59 IST.

Assignment submitted on 2025-04-09, 23:19 IST

1) A star rating system which depicts the energy efficiency of an electrical appliance comes under which type of policy **1 point**

- ☒ Standards and Labelling
- ☐ Preferential Tariffs
- ☐ Building Codes
- ☐ Carbon Tax

Yes, the answer is correct.

Score: 1

Accepted Answers:

Standards and Labelling

2) Which type of policy instrument do the 'Bharat Stage Emission Standards' represent in India's vehicle emission control framework? **1 point**

- ☒ Regulatory instrument
- ☐ Market-based instrument
- ☐ Voluntary agreement
- ☐ Awareness campaign

Country energy balance ()	<p>Yes, the answer is correct. Score: 1 Accepted Answers: <i>Regulatory instrument</i></p>	
Week 3 - Energy Economics ()	<p>3) Which of the following initiatives is primarily focused on sustainable building design rather than energy access? 1 point</p> <p> <input type="radio"/> Saubhagya Scheme <input type="radio"/> Deendayal Upadhyaya Gram Jyoti Yojana <input type="radio"/> UJJWALA Yojana <input checked="" type="radio"/> GRIHA </p>	
Week 4 - Energy Resources ()		
Week 5 - Non-Renewable Resource Economics ()	<p>Yes, the answer is correct. Score: 1 Accepted Answers: <i>GRIHA</i></p>	
Week 6 - Preferences, Utility and Social choices ()	<p>4) Which of the following is a key component of sustainability analysis? 1 point</p> <p> <input type="radio"/> Energy efficiency assessment <input type="radio"/> Cost-benefit evaluation <input type="radio"/> Environmental impact measurement <input checked="" type="radio"/> All of the above </p>	
Week 7 - Public and private goods, Externalities ()	<p>Yes, the answer is correct. Score: 1 Accepted Answers: <i>All of the above</i></p>	
Week 8 - Energy and Financing ()	<p>5) When a production subsidy or consumption subsidy is provided on the fuel price, the environmental damage _____ 1 point</p> <p> <input checked="" type="radio"/> Increases <input type="radio"/> Decreases <input type="radio"/> Remains same <input type="radio"/> Not related </p>	
Week 9 - Input-Output Analysis ()	<p>Yes, the answer is correct. Score: 1 Accepted Answers: <i>Increases</i></p>	
Week 10 - Primary Energy Analysis, Net Energy Analysis ()	<p>6) India's Nationally Determined Contributions (NDCs) under the Paris Agreement aim to reduce the carbon intensity of GDP by 45% from 2005 levels by 2030. Which of the following strategies can contribute to achieving this target? 1 point</p> <p> <input type="radio"/> Reducing the carbon intensity of the energy sector <input type="radio"/> Reducing the energy intensity of GDP <input type="radio"/> Changing the structure of the economy </p>	
Week 11 - Net Energy Analysis (Continued),		

Energy Policy ()

- ☐ Lecture 22A: Net Energy Analysis-Part 3 (unit? unit=115&lessor n=116)
- ☐ Lecture 22B: Net Energy Analysis- Part 4 (unit? unit=115&lessor n=117)
- ☐ Lecture 23A: Energy Policy-Part 1 (unit? unit=115&lessor n=118)
- ☐ Lecture 23B: Energy Policy-Part 2 (unit? unit=115&lessor n=119)
- ☐ Lecture 24A: Energy Policy Examples-Part 1 (unit? unit=115&lessor n=120)
- ☐ Additional Learning (unit? unit=115&lessor n=121)
- ☐ Weekly Feedback (unit? unit=115&lessor n=123)
- ☒ **Quiz: Week 11 : Assignment 11 (assessment? name=216)**

Week 12 - Energy policy

☒ All of the above

Yes, the answer is correct.

Score: 1

Accepted Answers:

All of the above

7) The ability of a policy to withstand external factors, such as changes in environmental or political conditions, is best described by which criterion? **1 point**

- ☐ Economic efficiency
- ☐ Equity
- ☒ Policy robustness
- ☐ Political acceptability

Yes, the answer is correct.

Score: 1

Accepted Answers:

Policy robustness

8) Which among the following are the stakeholders of India's Intended Nationally Determined Contributions (INDCs) to the UNFCCC? **1 point**

- ☐ Government of India
- ☐ Financing institutions
- ☐ Energy Industry
- ☒ All of the above

Yes, the answer is correct.

Score: 1

Accepted Answers:

All of the above

9) A zinc production facility has an average annual production of 158 tonnes, with a cumulative energy demand (CED) of 6.5 MJ/kg. What is the total input energy consumed (in TJ) over its entire lifetime of 25 years? (1 tonne = 1000 kg, 1 TJ = 10^{12} J = 10^6 MJ) **1 point**

- ☒ 25.7
- ☐ 257.5
- ☐ 18.5
- ☐ 270.6

Yes, the answer is correct.

Score: 1

Accepted Answers:

25.7

10) For the question above (Q9), find the carbon emission footprint, CEF (in kg CO₂/ kg zinc) if the total CO₂ emissions of the plant over its lifetime is 2250 tonnes **1 point**

- ☐ 0.5

(continued),
Future
Energy
Systems ()

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☒ 0.57

☐ 0.45

☐ 0.8

Yes, the answer is correct.

Score: 1

Accepted Answers:

0.57