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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 8 : Assignment 8

The due date for submitting this assignment has passed.
Due on 2025-03-19, 23:59 IST.

Assignment submitted on 2025-03-19, 22:16 IST

1) Select the appropriate option which arranges following cooking mechanisms in increasing manner of stove efficiency (i.e. from minimum efficiency to maximum efficiency)   *1 point*

1. Traditional charcoal stoves
2. LPG Stove
3. Electric Hot plate
4. Kerosene Wick stove
5. Animal dung in traditional stove

- ○ 4,1,5,2,3
- ○ 3,2,4,1,5
- ○ 5,1,4,2,3
- ◉ 1,5,2,4,3
- ○ 1,5,4,2,3

No, the answer is incorrect.
Score: 0
Accepted Answers:
5,1,4,2,3

2) The targeted returns of venture capital are _____ than that of the mutual funds/retail investors.   *1 point*

◉ higher

◯ lower

◯ equal

◯ marginally higher

◯ marginally lower

Yes, the answer is correct.
Score: 1

Accepted Answers:
higher

3) A company is planning to take a loan for an energy project, which of the following does **1 point** the loan repayment not depend on?

◯ Interest rate

◯ Tenor (duration) of the loan

◯ Amount of the loan

◉ Discount rate

Yes, the answer is correct.
Score: 1

Accepted Answers:
Discount rate

4) A solar power plant of 10 MW capacity has a capital cost of INR 30 crores. Calculate the annualised capital cost in crores for a life of 25 years and a discount rate of 25%. (Enter answer up to second decimal places).

7.53

Yes, the answer is correct.
Score: 1

Accepted Answers:
(Type: Range) 7.47,7.57

1 point

5) The Bachat Lamp Yojana by Bureau of Energy Efficiency included replacement of **1 point** incandescent lamps by _____.

◉ CFL lamps

◯ LED lamps

◯ Solar-powered lighting systems

◯ Solar lanterns

Yes, the answer is correct.
Score: 1

Accepted Answers:
CFL lamps

6) A PV power plant in Rajasthan has a capacity of 100 MW. The Capital investment is Rs 300 crores, assuming a capacity factor of 17%, with a power purchase agreement guaranteeing a price of INR 4/kWh, assuming a lifetime of 25 years, neglecting O&M costs, answer the following questions. What is the Internal Rate of Return (IRR) (in percentage) of the project? (Enter answer up to second decimal place).

> 19.63

Yes, the answer is correct.
Score: 2

Accepted Answers:
(Type: Range) 19.4,19.8

2 points

7) Which of the following is not an example of financing instruments? 16 AB pg 9   **1 point**

○ Multilateral development banks Bilateral Aid, Funds/Foundation, Green Investment, Technical Asst.,
                                   Commercial Loans & Investment
○ Soft Loans

○ Market based loans

○ Grants

Yes, the answer is correct.
Score: 1

Accepted Answers:
Multilateral development banks

8) True or false: The cost of capital in the case of corporate finance is relatively higher   **1 point**
than that of project finance.   16AB Pg8

○ True

○ False

Yes, the answer is correct.
Score: 1

Accepted Answers:
False

9) For a constant duration (n=constant), the capital recovery factor [i.e. CRF(d,n)]   **1 point**
_____ with increase in the discount rate (d).

○ increases

○ decreases

○ remains constant

○ changes randomly

Yes, the answer is correct.
Score: 1

Accepted Answers:
increases