

Name:
Enrolment No:



UNIVERSITY WITH A PURPOSE

UNIVERSITY OF PETROLEUM & ENERGY STUDIES
Online End Semester Examination, May 2021

Course: Introductory Power Economics
Program: BA Energy Economics
Course Code: ECON 2008

Semester: IV
Time: 3 Hours
Max. Marks: 100

SECTION A

1. Each Question will carry 5 Marks
2. Instruction: Explain each briefly in not more than 5 lines

S.No	Question	COs
Q1	Explain the features of IEGC, 2010	CO 4
Q2	Major sources of Electricity Generation in India	CO 1
Q3	Greenhouse gases that qualify for CDM projects under the Kyoto Protocol projects	CO 3
Q4	Role of CTU in the Indian Electricity sector	CO 1
Q5	Explain the objectives and impact of National Tariff Policy 2016	CO 4
Q6	Major overarching characteristics of CDM	CO 3

Section B

1. Each question will carry 10 marks
2. Instruction: Write short / brief notes

Q7	Explain how government policy and market deregulation have been instrumental in the creation of DR programs.	CO 4
Q8	Explain Partial adjustment model (PAM) and seemingly unrelated regression estimation (SURE) models to forecast long term energy demand	CO 2
Q9	Explain the CDM activity life cycle under the Marrakech Accords	CO 3
Q10	Explain the drivers that affect the power demand.	CO 2
Q11	Compare and contrast the DR programs for various RTOs	CO 1

Section C

1. Each Question carries 20 Marks.
2. Instruction: Write long answer.

Q12	a.) Explain the concept of LCOE and its benefits (5 marks)	
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	<p>b.) Calculate the LCOE for the natural gas power plant and the wind power plant with the wind plant has a capital cost of \$1.2 million and a variable cost of \$5/MWh. The natural gas plant has a capital cost of \$600,000 and a variable cost of \$50/MWh. Each plant produces 2,628 MWh per year. Assume a 10% annual discount rate and a 20-year life for each project. (10 marks)</p> <p>c.) Explain the reason that if given a choice to build any one power plant mentioned above, which one should a generator go for? (5 marks)</p>	CO 2
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