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UNIVERSITY OF PETROLEUM AND ENERGY STUDIES
Online End Semester Examination, December 2020

Course: Energy Analytics   **Semester: 3**
Program: MBA Business Analytics   **Time 03 hrs.**
Course Code: DSBA 8007   **Max. Marks: 100**

SECTION A
1. **Each Question will carry 5 Marks**
2. **Instruction: Complete the statement / Select the correct answer(s)**

S. No.	Questions	CO
Q1	Energy analytics can be applied in the field of a) Wind Energy b) Electrical Energy c) Solar Energy d) None of the above e) All of the above	CO1
Q2	"The judicious and effective use of energy to maximize profits and enhance competitive positions". This can be the definition of: a) Energy conservation b) Energy management c) Energy policy d) Energy Audit	CO1
Q3	Smart Meters are used for a) Calculating the energy units consumed b) Detecting electrical faults in a building c) Storing Electrical Data d) Option a) and b) are correct e) Option b) and c) are correct f) Option a) and c) are correct	CO4
Q4	One can substitute non-renewable energy with renewable energy when _____.	CO1
Q5	The five elements of energy management cycle are _____, _____, _____, ____ and _____.	CO1
Q6	Smart Grids facilitate one-way communication only.	CO4

	Please state whether the above statement is a) True b) False	

SECTION B
1. **Each Question will carry 10 Marks**
2. **Instruction: Write short or Brief Notes**

Q7	Explain the advantages of using Smart Grids and Smart Meters through big data. Answer point wise (Mention any four advantages of Smart Grids and Smart Meters).	CO4
Q8	What are the two types of demand forecasting in the energy sector? Explain.	CO3
Q9	Explain the benefits of using Internet of Things in the field of energy analytics.	CO3
Q10	Name any four analytical tools used in the energy sector and explain their usage.	CO2
Q11	Explain the solution development process for demand forecasting in the energy sector. OR Explain in detail any five advantages of using energy analytics in the energy sector.	CO4

SECTION C
1. **Each Question will carry 20 Marks**
2. **Instruction: Write long answers**

Q12	How to benefit from Big Data Analytics in the Oil and Gas industry? OR What do you mean by energy trading and risk management? Explain in minimum of 500 – 600 words (preferably point-wise).	CO4