

Name:	
Enrolment No:	

UNIVERSITY OF PETROLEUM AND ENERGY STUDIES
End Semester Examination, December 2021

Program: MBA Power Management	Semester – III
Subject (Course): Fuel and Water resources Management	Max. Marks: 100
Course Code : PIPM8001	Duration: 3 hrs.
No. of page/s: 3	

SECTION A

- 1. Each Question will carry 5 Marks**
2. Instruction: Attempt all questions

		Marks	CO
Q 1	State the Calorific value of the types of Non-coking Coal: i. G1 ii. G7	2	CO1
Q2	Complete the abbreviations 1. NAR 2. OPEC	2	CO1
Q3	Name the Basic Oil Refinery Economic constraints.	2	CO1
Q4	_____, _____, _____ & _____ are the Input Refinery value drivers	2	CO1
Q5	How much coal is required in a day for a 500 MW thermal power plant from following data Calorific Value of Coal= 3300 Kcal/kg SHR of the TPP = 2450 Kcal/ Kwh	2	CO1
Q6	Name the countries from where India imports coal	2	CO1
Q7	Name 2 processes by which we are able to produce Hydrogen	2	CO1
Q8	Name the regulatory agencies in Oil & Gas sector in India	2	CO1
Q9	Name 2 countries from where we can get Sour and Heavy type of Crude Oil	2	CO1

Q10	Name 2 countries from where we can get Sweet Crude oil	2	CO1																			
SECTION B Attempt all Questions																						
Q1	Analyze the role of Energy Storage in Indian energy Sector.	5	CO2																			
Q2	Differentiate primary, secondary and tertiary energy with suitable examples	5	CO2																			
Q3	What are the important tests for choosing elementary price indices?	5	CO2																			
Q4	Explain Coal Price Index.	5	CO2																			
SECTION-C																						
<p>1. Each Question carries 10 Marks. 2. Instruction: Write long answer.</p>																						
Q1	<p>From below, mentioned data find out the total energy change by finding out Activity effect, Structural effect and energy intensity change.</p> <table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <thead> <tr> <th rowspan="2">Year</th> <th colspan="2">Sector 1</th> <th colspan="2">Sector 2</th> </tr> <tr> <th>GDP</th> <th>Energy Use</th> <th>GDP</th> <th>Energy Use</th> </tr> </thead> <tbody> <tr> <td>2017</td> <td>125</td> <td>250</td> <td>100</td> <td>300</td> </tr> <tr> <td>2018</td> <td>200</td> <td>350</td> <td>250</td> <td>500</td> </tr> </tbody> </table> <p>Or</p> <p>Explain the Hydrogen Economy</p>	Year	Sector 1		Sector 2		GDP	Energy Use	GDP	Energy Use	2017	125	250	100	300	2018	200	350	250	500	10	CO3
Year	Sector 1		Sector 2																			
	GDP	Energy Use	GDP	Energy Use																		
2017	125	250	100	300																		
2018	200	350	250	500																		
Q2	Analyze Crack Spread and explain the calculation with suitable example.	10	CO3																			
Q3	What is ultimate and proximate analysis of coal? Explain in detail the ultimate analysis.	10	CO3																			

Section D

Q1	How a business model can be developed for round the clock power supply by mixing various energy resources. Mention the challenges and their mitigation policy also.	15	CO4
Q2	Critically compare NELP, OALP and HELP policy. Or Explain Smart water utility system with suitable examples	15	CO4