

**Name:**  
**Enrolment No:**



**UNIVERSITY OF PETROLEUM & ENERGY STUDIES**  
**End Semester Examination – December, 2018**

**Program/course: MBA (ET)**  
**Subject: Understanding Energy Value Chain (Power and Coal)**  
**Code: OGET7002**  
**No. of page/s: 8**

**Semester : I**  
**Max. Marks : 100**  
**Duration : 3 Hrs**

*All questions shall be strictly answered in chronological order.*

<b><u>SECTION A</u></b>		<b><u>[20 Marks]</u></b>	
<b>Ques 1</b>	Which of the following happens in Carbonisation?: a) Dead vegetation is converted to coal b) Carbon gets liberated into nature c) Carbon is formed from coal d) Carbon is formed from nature	<b>2</b>	<b>CO1</b>
<b>Ques 2</b>	Coal India produces _____% of total coal produced in India: a) 70% b) 80% c) 85% d) 90%	<b>2</b>	<b>CO2</b>
<b>Ques 3</b>	Why is Indian coal is not considered to be the best coal for power generation.	<b>2</b>	<b>CO1, CO2</b>
<b>Ques 4</b>	India plans to produce at least _____% of its power from non-fossil fuel sources by 2030 a) 25% b) 30% c) 35% d) 40%	<b>2</b>	<b>CO1</b>
<b>Ques 5</b>	Which of the following is not a renewable fuel of generation: a) Bagasse b) Geothermal Energy c) Solar Heat d) Liquefied Natural Gas	<b>2</b>	<b>CO2</b>
<b>Ques 6</b>	Name any 2 private distribution companies in India.	<b>2</b>	<b>CO2, CO3</b>
<b>Ques 7</b>	What are the key criteria for testing coal quality?: a) Calorific value, moisture, and volatile content b) Calorific value, volatile content, sulphur content and ash content c) Volatile content, ash content, carbon content and grindability	<b>2</b>	<b>CO1, CO3</b>

	d) Calorific value, moisture, ash content, volatile content and Sulphur content		
<b>Ques8</b>	Define Power Trading in accordance to Electricity Act 2003.	<b>2</b>	<b>CO1</b>
<b>Ques9</b>	Central Transmission Utility for India is _____	<b>2</b>	<b>CO2</b>
<b>Ques 10</b>	Surface mining accounts for around _____% of total produced coal a) 38% b) 40% c) 42% d) 45%	<b>2</b>	<b>CO1</b>
<b><u>SECTION B</u></b>		<b>[20 marks]</b>	
<b>Ques 11</b>	Describe coal liquefaction process and its advantages.	<b>5</b>	<b>CO3, CO4</b>
<b>Ques 12</b>	Analyze the use of Liquid Fuels as a fuel source for power generation.	<b>5</b>	<b>CO2, CO3</b>
<b>Ques 13</b>	Provide the comparative analysis of coal substitutes for power generation	<b>5</b>	<b>CO1, CO2</b>
<b>Ques 14</b>	Evaluate the advantages of Pulverizing Coal prior to use in power plants.	<b>5</b>	<b>CO4</b>
<b><u>SECTION C</u></b>		<b>[30 Marks]</b>	
<b>Ques 15</b>	Analyze the importance of coal in Indian energy mix. Can Natural gas replace coal in near term?	<b>10</b>	<b>CO3,CO4</b>
<b>Ques 16</b>	Provide a comparative analysis of Postal Stamp and Point of Connection Transmission Pricing Systems.	<b>10</b>	<b>CO4</b>
<b>Ques 17</b>	Critically analyze the efficiency of a power plant highlighting the factors affecting the efficiency and the methods to improve the efficiency.	<b>10</b>	<b>CO3,CO4</b>
<b><u>SECTION D</u></b>		<b>[30 Marks]</b>	
	Refer to the attached case and answer the following questions:		
<b>Ques 18</b>	What were the reasons for restructuring the Gujarat Electricity Board?	<b>6</b>	<b>CO2, CO4</b>
<b>Ques 19</b>	What are the various lessons to be learnt from the restructuring of GEB?	<b>6</b>	<b>CO3, CO4</b>
<b>Ques 20</b>	Analyze “Driving External Change as a Socio Economic Process”	<b>6</b>	<b>CO2, CO3</b>
<b>Ques 21</b>	The success of Restructuring GEB can be replicated? Discuss for or against the statement.	<b>6</b>	<b>CO2, CO4</b>
<b>Ques 22</b>	Discuss the learnings for Irrigation Leaders for initiating the change process.	<b>6</b>	<b>CO2, CO3</b>

**Name:**  
**Enrolment No:**



UNIVERSITY WITH A PURPOSE

**UNIVERSITY OF PETROLEUM & ENERGY STUDIES**  
**End Semester Examination – December, 2018**

**Program/course:** MBA (ET)  
**Subject:** Understanding Energy Value Chain (Power and Coal)  
**Code:** OGET7002  
**No. of page/s:** 8

**Semester :** IIIrd  
**Max. Marks :** 100  
**Duration :** 3 Hrs

*All questions shall be strictly answered in chronological order.*

<b><u>SECTION A</u></b>		<b><u>[20 Marks]</u></b>	
<b>Ques 1</b>	Which of the following happens in Carbonisation?: a) Dead vegetation is converted to coal b) Carbon gets liberated into nature c) Carbon is formed from coal d) Carbon is formed from nature	<b>2</b>	<b>CO1</b>
<b>Ques 2</b>	Coal India produces _____% of total coal produced in India: a) 70% b) 80% c) 85% d) 90%	<b>2</b>	<b>CO2</b>
<b>Ques 3</b>	What is Pulverization of coal?	<b>2</b>	<b>CO1, CO2</b>
<b>Ques 4</b>	India plans to produce at least _____% of its power from non-fossil fuel sources by 2030 a) 25% b) 30% c) 35% d) 40%	<b>2</b>	<b>CO1</b>
<b>Ques 5</b>	Which of the following is a RE generation source: a) Municipal Solid Waste b) Coal c) Diesel Fuel d) Liquefied Natural Gas	<b>2</b>	<b>CO2</b>
<b>Ques 6</b>	Name any 2 private transmission companies in India.	<b>2</b>	<b>CO2, CO3</b>
<b>Ques 7</b>	What are the key criteria for testing coal quality?: e) Calorific value, moisture, and volatile content f) Calorific value, volatile content, sulphur content and ash content g) Volatile content, ash content, carbon content and grindability h) Calorific value, moisture, ash content, volatile content and Sulphur content	<b>2</b>	<b>CO1</b>

<b>Ques8</b>	Total Installed Generation Capacity of India as on 31 <sup>st</sup> August 2018 is _____	<b>2</b>	<b>CO1</b>
<b>Ques9</b>	Surface mining accounts for around _____% of total produced coal a) 38% b) 40% c) 42% d) 45%	<b>2</b>	<b>CO3</b>
<b>Ques 10</b>	Name the largest coal and gas based generating stations in India with capacity.	<b>3</b>	<b>CO1</b>
<b><u>SECTION B</u></b>		<b>[20 marks]</b>	
<b>Ques 11</b>	What is the difference between Natural Gas and Manufactured Gas. Why is Manufactured Gas considered to be unfit for Power Generation	<b>5</b>	<b>CO3, CO4</b>
<b>Ques 12</b>	Analyze the use of Gaseous Fuels as a fuel source for power generation.	<b>5</b>	<b>CO2, CO3</b>
<b>Ques 13</b>	Thermal Power can be generated by use of various fuel sources. Provide a comparative analysis all such fuel sources used for power generation	<b>5</b>	<b>CO1, CO2</b>
<b>Ques 14</b>	Evaluate the advantages of Coal Washing prior to use in power plants.	<b>5</b>	<b>CO4</b>
<b><u>SECTION C</u></b>		<b>[30 Marks]</b>	
<b>Ques 15</b>	Analyze the importance of coal in Indian energy mix. Can Natural gas replace coal in near term?	<b>15</b>	<b>CO3,CO4</b>
<b>Ques 16</b>	Discuss the role of the following utilities in Power Transmission a) Load Despatch Centres b) Inter State Transmission System	<b>15</b>	<b>CO4</b>
<b><u>SECTION D</u></b>		<b>[30 Marks]</b>	
	Refer to the attached case and answer the following questions:		
<b>Ques 18</b>	What were the reasons for restructuring the Gujarat Electricity Board?	<b>6</b>	<b>CO2, CO4</b>
<b>Ques 19</b>	What are the various lessons to be learnt from the restructuring of GEB?	<b>6</b>	<b>CO3, CO4</b>
<b>Ques 20</b>	Analyze “Driving External Change as a Socio Economic Process”	<b>6</b>	<b>CO2, CO3</b>
<b>Ques 21</b>	The success of Restructuring GEB can be replicated? Discuss for or against the statement.	<b>6</b>	<b>CO2, CO4</b>
<b>Ques 22</b>	Discuss the learnings for Irrigation Leaders for initiating the change process.	<b>6</b>	<b>CO2, CO3</b>