

|               |  |
|---------------|--|
| Name:         | <br><b>UPES</b><br>UNIVERSITY WITH A PURPOSE |
| Enrolment No: |  |

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

|  |                         |
|--|-------------------------|
| <b>Program:</b> MBA Power Management                         | <b>Semester – III</b>   |
| <b>Subject (Course):</b> Fuel and Water resources Management | <b>Max. Marks: 100</b>  |
| <b>Course Code :</b> PIPM8001                                | <b>Duration: 3 hrs.</b> |
| <b>No. of page/s: 2</b>                                      |                         |

**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:<br>i. G1<br>ii. G4<br>iii. G17<br>iv. G7<br>v. G6 | 5     | CO2 |
| Q2  | Complete the abbreviations<br><br>1. FOB<br>2. CIF<br>3. GAR<br>4. NAR<br>5. OPEC                            | 5     | CO1 |
| Q3  | Name the Basic Oil Refinery Economic constraints.  | 5     | CO1 |
| Q4  | _____, _____, _____ & _____ are the Input Refinery value drivers   | 5     | CO2 |
| Q5  | _____, _____ & _____ are the sustainable water options for an urban area                                     | 5     | CO2 |
| Q6. | _____ & _____ are the general way of generating Hydrogen for fuel  | 5     | CO2 |

**SECTION B**

|    |   |    |     |
|----|---|----|-----|
| Q7 | What is ultimate and proximate analysis of coal? Explain in detail the ultimate analysis. | 10 | CO3 |
| Q8 | Analyze Crack Spread and explain the calculation with suitable example.                   | 10 | CO3 |

|  |   |    |     |
|--|---|----|-----|
| Q9   | Explain Water balance in a typical Indian City and what sort of policy and technology interventions is needed to resolve it   | 10 | CO3 |
| Q10  | Analyze and Explain Activity effect, Structural effect and energy intensity change and its implication in framing Energy Policy<br><br>Or<br><br>Explain the Hydrogen Economy | 10 | CO4 |
| Q11  | Analyze the Shakti Policy?<br><br>Or<br><br>Analyze the coal stocking policy?   | 10 | CO3 |
| <b>SECTION-C</b>   |   |    |     |
| <b>1. Each Question carries 20 Marks.</b><br><b>2. Instruction: Write long answer.</b> |   |    |     |
|  | 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.           | 20 | CO4 |