

**CERTIFICATE IN ENERGY TECHNOLOGY
AND MANAGEMENT (CETM)**

Term-End Examination

June, 2021

**OEY-001 : ENERGY RESOURCES AND
CONVERSION PROCESSES**

Time : 3 hours

Maximum Marks : 70

Note : Answer any **seven** questions. All questions carry equal marks. Use of scientific calculator is permitted.

1. Define the following : 5×2=10
- (a) Internal Energy
 - (b) Hydraulic Retention Time
 - (c) High Grade Energy
 - (d) Alkalinity
 - (e) Electromagnetic Energy
2. Explain the energy conversion process in an automobile. 10

3. Define 'Fuel'. Discuss the advantages of gaseous fuels over solid fuels. 10
 4. How is 'coal' classified ? Describe in detail the characteristics of 'lignite' and 'bituminous' coal. 10
 5. Explain the principle of wind energy and enlist its advantages and disadvantages. 10
 6. Discuss and differentiate between Hydrogen and Fuel cells. 10
 7. List the biomass technologies and describe their applications. 10
 8. Explain the construction and working of a fuel cell along with its components. 10
 9. Describe in detail the significance of nuclear energy in the present scenario and also give its environmental impact. 10
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