

**BIRLA INSTITUTE OF TECHNOLOGY, MESRA, RANCHI
(MID SEMESTER EXAMINATION)**

**CLASS: BTECH
BRANCH: ALL (EXCEPT MECHANICAL)**

**SEMESTER: V
SESSION: MO/2022**

SUBJECT: ME392 RENEWABLE ENERGY SOURCES

TIME: 2 HOURS

FULL MARKS: 25

INSTRUCTIONS:

1. The total marks of the questions are 25.
 2. Candidates attempt for all 25 marks.
 3. Before attempting the question paper, be sure that you have got the correct question paper.
 4. The missing data, if any, may be assumed suitably.
 5. Tables/Data hand book/Graph paper etc. to be supplied to the candidates in the examination hall.
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	CO	BL
Q1 (a) Distinguish between renewable and non-renewable sources of energy.	[2]	
Q1 (b) What do you mean by Per Capita energy Consumption? Discuss briefly the advantages of Renewable source.	[3]	
Q2 (a) Discuss about global warming and green power.	[2]	
Q2 (b) Discuss about India Energy Scenario.	[3]	
Q3 (a) Sketch and explain: Measurement of Solar Radiations by Pyranometer or any other method.	[2]	
Q3 (b) Sketch and explain: (i) Solar water heater (ii) Solar furnace	[3]	
Q4 (a) Sketch and explain: solar collectors.	[2]	
Q4 (b) Explain the advantages of solar PV systems.	[3]	
Q5 (a) How will you produce electricity with wind energy?	[2]	
Q5 (b) Derive an equation for power in the wind.	[3]	

::: 30/09/2022 :::M