

BIRLA INSTITUTE OF TECHNOLOGY, MESRA, RANCHI
(MID SEMESTER EXAMINATION SP2023)

CLASS: B.TECH
BRANCH: MECHANICAL ENGG.

SEMESTER : IV
SESSION : SP/2023

SUBJECT: ME217 RENEWABLE ENERGY RESOURCES

TIME:02 Hours

FULL MARKS: 25

INSTRUCTIONS:

1. The question paper contains 5 questions each of 5 marks and total 25 marks.
 2. Attempt all questions.
 3. The missing data, if any, may be assumed suitably.
 4. Tables/Data handbook/Graph paper etc., if applicable, will be supplied to the candidates
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Q.1(a)	<i>Discuss the primary energy and secondary energy sources.</i>	[2]	CO-1	BL L-2
Q.1(b)	<i>State the advantages and disadvantages of renewable energy sources.</i>	[3]	CO-1	L-1
Q.2(a)	<i>How are the energy resources classified?</i>	[2]	CO-1	L-2
Q.2(b)	<i>Explain the significance of energy consumption as a measure of prosperity.</i>	[3]	CO-1	L-1
Q.3(a)	<i>Define per capita energy consumption.</i>	[2]	CO-1	L-1
Q.3(b)	<i>Explain with neat sketch working principle of flat plate collector.</i>	[3]	CO-2	L-1L-3
Q.4(a)	<i>How are the solar collector classified?</i>	[2]	CO-2	L-2
Q.4(b)	<i>Explain with neat sketch working principle of natural circulation solar water heater.</i>	[3]	CO-2	L-1 L-3
Q.5(a)	<i>Differentiate between beam radiation and diffuse radiation.</i>	[2]	CO-2	L-4
Q.5(b)	<i>Explain the working principle of box type solar cooker.</i>	[3]	CO-2	L-1

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