

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

**CLASS: BTECH  
BRANCH: MECH**

**SEMESTER: IV  
SESSION : SP/2020**

**SUBJECT: ME255 RENEWABLE ENERGY RESOURCES**

**TIME: 2 HOURS**

**FULL MARKS: 25**

**INSTRUCTIONS:**

1. The total marks of the questions are 25.
  2. Candidates may 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.
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- Q1 (a) What are the different sources of Energy? [2]  
(b) Differentiate between conventional energy and non-conventional energy. [3]
- Q2 (a) What is Solar Energy? [2]  
(b) What are the different types of solar collectors? [3]
- Q3 (a) What is solar cell? [2]  
(b) Define solar constant, incident angle and solar attitude angle. [3]
- Q4 (a) What is Solar PV Array? [2]  
(b) Explain the working of Flat bed collector. [3]
- Q5 (a) What is wind mill? [2]  
(b) What are the types of wind energy conversion devices? Explain anyone. [3]

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