

DR. BABASAHEB AMBEDKAR TECHNOLOGICAL UNIVERSITY, LONERE

Mid Semester Examination – Sep/Oct 2019

Course: B. Tech. in Chemical Engineering

Sem: III

Subject Name: Elective –I Renewable Energy Sources

Subject Code: BTCHCE306B

Max Marks: 20

Date:- 9/10/2019

Duration:- 1 Hr.

Instructions to the Students:

1. Illustrate your answers with neat sketches, diagram etc., wherever necessary.
2. If some part or parameter is noticed to be missing, you may appropriately assume it and should mention it clearly.

Q.1 Attempt following Questions by choosing option

(Level/CO)	Marks
1. Biomass is described as	1 X 6
(a) Large Living things (b) Inorganic matter that can be converted to fuel	CO2
(c) Organic matter that can be converted to fuel (d) Petroleum	
2. A windmill is an example of a turbine	CO4
(a) True (b) False	
3. In which way does the Darrieus rotor spin	CO4
(a) Vertically (b) Horizontally (c) Both vertically & Horizontally (d) None of these	
4. What is one example of Biomass	CO2
(a) Electricity (b) Trees (c) Wind (d) Water	
5. By which process solar energy is converted into chemical energy	CO3
(a) Evaporation (b) Greenhouse effect (c) Photosynthesis (d) None of these	
6. What is one disadvantage of renewable energy	CO1
(a) Electricity & power could become much cheaper	
(b) 3 rd world countries could have affordable energy	
(c) Many people could become energy independent	
(d) Most sources are expensive to get started	

www.FirstRanker.com

www.FirstRanker.com

www.FirstRanker.com

Q.2 Solve Any Two of the following.

- | | | |
|--|-----|-------|
| (A) What are renewable and nonrenewable energy sources? Give applications | CO1 | 2 X 3 |
| (B) Describe the main considerations in selecting a site for wind energy generators | CO4 | |
| (C) What are the instruments used for measuring solar radiations? Describe any two with sketches | CO3 | |

Q.3 Solve Any One of the following.

- | | | |
|--|-----|-------|
| (A) Explain various types of solar radiations? Explain working of flat plate collectors | CO3 | 1 X 8 |
| (B) Explain briefly the construction of working of horizontal and vertical axis wind turbine with neat sketches. Discuss advantage and disadvantage of it. | CO4 | |

*** End ***

Signature