Seat No.:	Enrolment No
-----------	--------------

## **GUJARAT TECHNOLOGICAL UNIVERSITY**

ME - SEMESTER- II(New course) • EXAMINATION (Remedial) - WINTER- 2015

	•		14/12/201	15
Subject Name: Energy Management Time:2:30 pm to 5:00 pm Instructions:  Total Mar		Marks: 7	ks: 70	
	2.	<ul> <li>Attempt all questions.</li> <li>Make suitable assumptions wherever necessary.</li> <li>Figures to the right indicate full marks.</li> </ul>		
Q.1	(a)	A battery driven electric motor drives a cart, it has rated output of 60 moves at a velocity of 16 km/hr. on horizontal road. Losses are neglec is: the force of the vehicle, energy transferred in 1 hour, work done, energy transferred in 2 hour, work done, energy transferred in 2 hour, work done, energy transferred in 3 hour, work done, energy transferred in 4 hour, work done, energy transferred in 4 hour, work done, energy transferred in 5 hours.	ted what	07
	(b)	State and explain the principal sectors covered in energy strategies an planning.		07
Q.2	(a)	Explain supply side and demand side of energy management. Also hierarchical levels of supply side energy management.		07
	(b)	Sketch and explain a hybrid solar wind system with storage battery su various consumers.	pplied to	07
	(b)	OR State and explain environmental aspects associated with wind energy.		07
	<b>(b)</b>	-		
Q.3	(a) (b)	Write brief note on õPassive solar space heating system.ö List and explain coal production and processing technologies.  OR		07 07
Q.3	(a)	With neat sketch describe a solar heating system using air heating solar with advantages and disadvantages of the system.	collector	07
	<b>(b)</b>	Write brief note on coal liquefaction.		07
Q.4	(a) (b)	Explain site requirements considerations for tidal power plants List advantages and disadvantages of Geothermal energy.  OR		07 07
Q.4	(a) (b)	Explain civil works design considerations for mini and micro hydel projects. Describe thermochemical method of hydrogen production.		07 07
Q.5	(a) (b)	Write brief note on regulations in energy management. Why is the nuclear fusion reaction being given high priority in research and development? What are the basic problems to be overcome?  OR		07 07
Q.5	(a) (b)	Explain urban energy planning. Explain various energy conservation techniques applicable in conbuildings.	nmercial	07 07

\*\*\*\*\*