M.Tech(with Credits)-Regular-Semester 2012-Energy Management System Sem III

EMS 1109: Self Study Course-II

P. Pages : 1 **GUG/W/16/3833**

Time : Three Hours * 3 6 4 1 * Max. Marks : 70

Notes : 1. All questions carry equal marks as indicated.
2. Answer **any five** questions.
3. Due credit will be given to neatness and adequate dimensions.
4. Illustrate your answers wherever necessary with the help of neat sketches.
5. Use of non-programmable calculator is permitted.

1.	a)	Explain in details energy conservation opportunities in following application. i) Electric Motors. ii) Compressed Air system.	**10**
	b)	Briefly discuss the importance of Kyoto protocol for environmental safety.	**4**
2.	a)	Why does the more emphasis given on the concept of Integration and Hybridization of RES in present scenario?	**8**
	b)	What happens when energy prices go up, explain with suitable example?	**6**
3.	a)	What do you mean by Environmental impact assessment? How it will be carried out for thermal power plants.	**7**
	b)	Explain the necessities of price Benchmarking of RE system in energy market?	**7**
4.	a)	Discuss in brief the challenges for Hybrid Renewable energy systems.	**7**
	b)	Draw & explain SANKEY diagram for lighting system energy flows.	**7**
5.	a)	Discuss briefly any five energy efficiency improvement opportunities in lighting systems.	**8**
	b)	What do you mean by 'Carbon credits trading'? Explain its exact mechanism.	**6**
6.	a)	Explain prototype carbon fund? What are its uses?	**6**
	b)	List any six guide lining principles for carrying out material & energy balance.	**8**
7.	a)	Explain in brief with neat block diagram about Renewable Hybrid energy system.	**8**
	b)	Explain the process of ozone layer depletion and the problems associated with it?	**6**
8.	a)	How does electric power production affects the global climate? What are its consequences?	**7**
	b)	Explain the role of market prices in energy generation.	**7**

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