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## **Manipal Institute of Technology, Manipal**

(A Constituent Institute of Manipal University)



## VI SEMESTER B.TECH (CIVIL ENGINEERING) END SEMESTER EXAMINATIONS, MAY 2016

## SUBJECT: ENVIRONMENTAL MANAGEMENT [CIE-342] REVISED CREDIT SYSTEM

Time: 3 Hours 16-05-2016 MAX. MARKS: 50

## **Instructions to Candidates:**

- \* Answer any **FIVE FULL** questions.
- **Any missing data may be suitably assumed.**

1A.	What are the goals and scope of Environmental Management?				
1B.	Write a short note on-"Club of-Rome" and "Silent spring".	3			
1C.	Consider a forest with an annual increase of $1080 \text{ g/m}^2$ per year in forest biomass. If the biomass at the beginning of the year was measured at $10200 \text{ g/m}^2$ , what would be the new biomass in the forest at the end of one year?(Given: Average energy in vegetation = $21 \text{kJ/g}$ )				
2A.	Define Environmental Policy Instruments (EPI) and list various cleaner production strategies.				
2B.	Explain different steps involved in EIA with the help of flow diagram.	4			
2C.	What are the different benefits and constraints of Strategic Environmental Assessment (SEA)	3			
3A.	Define Environmental Audit and list out its application.	3			
3B.	What are the different stages in energy audit?	3			
3C.	What are the different areas that Environmental Audit deals with?	4			
4A.	Explain ISO 14040.	3			
4B.	Explain different phases of Life Cycle Assessment(LCA)	4			
4C.	Explain how the documentation for Environmental Management System is carried out.	3			
5A.	What are the different key issues associated with environmental design?	4			
5B.	List the various benefits of OHSAS 18001	3			
5C.	Define Eco labelling and explain various types of voluntary labels identified by ISO	3			
6A.	Enumerate the different problems associated with environmental taxes.	3			
6B.	Explain different types of environmental costs.	4			
6C.	Explain different cleaner technology practices	3			

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