

Department of Chemistry
National Institute of Technology Kurukshetra
Theory Examination

Month and year of examination: **Nov/Dec, 2017**Programme: **B. Tech. 1st Year**Subject: **Energy and Environmental Science**Course code: **CHIR-11**Maximum marks: **50**Number of questions to be attempted: **05**Time allowed: **03 hours**Total no. of questions: **08**Total no. of pages used: **02**

Before starting to write the solutions, please check the question paper for any discrepancy.

Ensure that you have been delivered the question paper of right course no. and right subject title.

Q. No.	Description	Marks
1	A) What is the difference between primary and secondary pollutants? Explain how formation of photochemical smog occurs. Discuss its consequences on environment.	5
	B) What do you mean by Thermal Pollution? Discuss its causes and effects. Give one suitable measure to control it.	5
2	A) What is the importance of ozone layer? Discuss the role of CFC and NO _x on depletion of ozone layer by giving relevant chemical reactions.	5
	B) Specify some major water pollutants and explain how their presence in water causes severe impacts on human communities, aquatic animals and agriculture.	5
3	A) Deforestation causes disaster to the environment, how? Explain.	5
	B) Define Bio-diversity? List some hot spots of Bio-diversity. What is ex-situ conservation of bio-diversity?	5
4	A) What is overgrazing? How does it contribute to the environmental degradation?	5
	B) Write a note on (any two): I. Biomass energy II. Solar energy III. Urban related energy problems	5
5	A) How energy is derived from wind? Discuss about its environmental benefits and impacts.	5
	B) Explain causes, effects and some control measures of nuclear hazards.	5
6	A) What is Acid rain? How does it form? Write its consequences.	5

	B) What is the scope of environmental studies with respect to carrier options?	5
7	A) Elaborate the environmental impacts due to mining activities.	5
	B) What is the major advantage of modern agriculture? Describe its effects related to high production of agricultural products.	5
8	A) Define an ecosystem. Discuss the basic structural features of ecosystem with the help of schematic diagram.	5
	B) Brief on water conservation and rain water harvesting.	5

Q. No.	Description	Marks
1	A) What is the difference between primary and secondary pollutants? Explain how formation of photochemical smog occurs.	5
	Discuss its consequences on environment.	
	B) What do you mean by Thermal Pollution? Discuss its causes and effects. Give one suitable measure to control it.	5
2	A) What is the importance of ozone layer? Discuss the role of CFC and NO _x on depletion of ozone layer by giving relevant chemical reactions.	5
	B) Specify some major water pollutants and explain how their presence in water causes severe impacts on human communities, aquatic animals and agriculture.	5
	A) Deforestation causes disaster to the environment, how? Explain.	5
3	B) Define Bio-diversity? List some hot spots of Bio-diversity. What is ex-situ conservation of bio-diversity?	5
	A) What is overgrazing? How does it contribute to the environmental degradation?	5
4	B) Write a note on (any two): I. Biomass energy II. Solar energy III. Urban related energy problems	5
	A) How energy is derived from wind? Discuss about its environmental benefits and impacts.	5
	B) Explain causes, effects and some control measures of nuclear hazards.	5
6	A) What is Acid rain? How does it form? Write its consequences.	5