

Bachupally, Kukatpally, Hyderabad –  $500\,090$ , A.P., India.  $(040)\,6686\,4440$ 

# SCHEDULE OF INSTRUCTIONS UNIT PLAN

Academic Year	: 2012-2013	
Semester	: I	UNIT NO.:1
Name of the Program: 1	B.TechBiotechnology	Year: 1 Section: A
Course/Subject:Env	ironmenta science	Course Code:GR11A1009
Name of the Faculty:	.Srilakshmi	Dept.: Basic Science
Designation: ASST.PR	OFESSOR/ ASSOCIATE PROF	ESSOR/ PROFESSOR/HOD.

		No. of				References
Lesson	Date	Periods	Topics / Sub - Topics	Objectives	Outcomes	(Text Book,
No.				Nos	Nos.	Journal)
						Page Nos.:to
	19/9/12	1	Introduction			
1.						
	19/9/12	1	Introduction	1	1	
2.						
	20/9/12	1	Introduction about	3	3	Environmental
3.			Environmental science			sciences by Barucha
	20/9/12	1	Definition, scope of	3	3	Environmental
4.			ecosystem			sciences by Barucha
	26/10/12	1	Concept, classification,	4	4	Environmental
5.			structure of ecosystem			sciences by Barucha
	26/10/12	1	public participation and	4	4	Environmental
6.			awareness			sciences by Barucha
	27/10/12	1	Components, function of	3	3	Environmental
7.			ecosystem			sciences by Barucha
	3/10/12	1	Biodiversity-types and values	3	2	Environmental
8.						sciences by Barucha
	3/10/12	1	Biodiversity- values	2	2	Environmental
9.						sciences by Barucha
	4/10/12	1	Conservation of diversity	2	2	Environmental
10.			species			sciences by Barucha

Srilakshmi Signature of faculty

Signature of HOD

Date:

Note: 1. ENSURE THAT ALL TOPICS SPECIFIED IN THE COURSE ARE MENTIONED.

- 2. ADDITIONAL TOPICS COVERED, IF ANY, MAY ALSO BE SPECIFIED IN BOLD
- 3. MENTION THE CORRESPONDING COURSE OBJECTIVE AND OUT COME NUMBERS AGAINST EACH TOPIC.



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# SCHEDULE OF INSTRUCTIONS UNIT PLAN

Academic Year	: 2012-2013	
Semester	: I	UNIT NO.:2
Name of the Program:	B.TechBiotechnology	Year:1 Section: A
Course/Subject:Env	vironmenta science	Course Code:GR11A1009
J		
Name of the Faculty: .	Srilakshmi	Dept.: Basic Science
•	ROFESSOR/ ASSOCIATE PROF	1

		No. of				References
Lesson	Date	Periods	Topics / Sub - Topics	Objectives	Outcomes	(Text Book,
No.				Nos.	Nos.	Journal)
						Page Nos.:to
	10/10/12	1	Definition, occurrencel	4	4	Environmental
1.			resources			sciences by Barucha
						and Anji reddy
	10/10/12	1	classification of natural	4	4	Environmental
2.			resources			sciences by Barucha
						and Anji reddy
	11/10/12	1	Positive and negative impacts	3	3	Environmental
3.			of water resources ,Forest			sciences by Barucha
			resources			
	11/10/12	1	mineral resources	3	3	Environmental
4.						sciences by Barucha
						Anji reddy
	17/10/12	1	Forest resources	4	4	Environmental
5.						sciences by Barucha
						Anji reddy
	17/10/12	1	Land resources	4	4	Environmental
6.						sciences by Barucha
	18/10/12	1	Energy resources	3	2	Environmental
7.						sciences by Barucha
						and Anji reddy
	18/10/12	1	Renewable resources	2	2	Environmental
8.						sciences by Barucha
						and Anji reddy
	25/10/12	1	Non-Renewable resources	2	2	Environmental
9.						sciences by Barucha
						and Anji reddy
4.0	31/10/12	1	Role of individual in	2	2	Environmental
10.			conservation of natural			sciences by Barucha
			resources			and Anji reddy

Srilakshmi Signature of faculty

Signature of HOD Date:

Date:

Note:

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- 3. MENTION THE CORRESPONDING COURSE OBJECTIVE AND OUT COME NUMBERS AGAINST EACH TOPIC.



Date:

### Gokaraju Rangaraju Institute of Engineering and Technology (Autonomous)

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#### SCHEDULE OF INSTRUCTIONS UNIT PLAN

<b>A</b> cademic	Year	٠	2012-	201	13	
<b>L</b> CuuCiiiiC	1 Cui	•	2012	,	-	

: I UNIT NO.:3
: I UNIT NO.:3

Name of the Faculty: ...Srilakshmi......Dept.: Basic Science.....

Designation: ASST.PROFESSOR/ ASSOCIATE PROFESSOR/ PROFESSOR/HOD.

		No. of				References
Lesson	Date	Periods	Topics / Sub - Topics	Objectives	Outcomes	(Text Book,
No.				Nos.	Nos.	Journal)
						Page Nos.:to
	1/11/12	1	Definition, types of pollutants	4	4	Environmental
1.						sciences by Barucha
						and Anji reddy
				_	_	Anubha kaushik
	1/11/12	1	classification of pollution,	3	3	Environmental
2.						sciences by Barucha
						and Anji reddy
	7/11/12	1	Causes, effects and control of	3	3	Environmental
3.			air pollution			sciences by Barucha,
						Anubha kaushik
	7/11/12	1	Causes, effects and control of	3	3	Environmental
4.			water pollution			sciences by Barucha
						Anji reddy
	8/11/12	1	Causes, effects and control of	3	3	Environmental
5.			marine			sciences by Barucha
						Anji reddy
	8/11/12	1	Causes, effects and control of	3	3	Environmental
6.			noise pollution			sciences by Barucha,
						kaushik
	14/11/12	1	effects and control of thermal	3	3	Environmental
7.			pollution			sciences by Barucha,
						kaushik
	14/11/12	1	effects and control of nuclear	3	3	Environmental
8.			pollution			sciences by Barucha,
						kaushik
	21/11/12	1	effects and control of soil	3	3	Environmental
9.			pollution			sciences by Barucha,
						kaushik
	22/11/12	1	Occupational hazards	3	3	Environmental
10.						sciences by Barucha,
						kaushik

Srilakshmi

Date:

Signature of HOD Signature of faculty

Note: 1. ENSURE THAT ALL TOPICS SPECIFIED IN THE COURSE ARE MENTIONED.

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- 3. MENTION THE CORRESPONDING COURSE OBJECTIVE AND OUT COME NUMBERS AGAINST EACH TOPIC.



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# SCHEDULE OF INSTRUCTIONS UNIT PLAN

<b>A</b> cademic	Year	:	2012-2013

Semester : I UNIT NO.: ...4.....

Name of the Faculty: ...Srilakshmi......Dept.: Basic Science......Designation: ASST.PROFESSOR/ ASSOCIATE PROFESSOR/ PROFESSOR/HOD.

		No. of			Outcomes	References
Lesson	Date	Periods	Topics / Sub - Topics	Objectives	Nos.	(Text Book,
No.				Nos.		Journal)
						Page Nos.:to
	28/11/12	1	Types, cause of natural	4	4	Environmental
1.			disasters, global warming			sciences by Barucha
						and Anji reddy
						Anubha kaushik
	28/11/12	1	effects of natural disasters	3	3	Environmental
2.						sciences by Barucha
						and Anji reddy
	29/12/12	1	global warming	2	2	Environmental
3.						sciences by Barucha,
						Anubha kaushik
	29/12/12	1	Ozone layer- role, location	3	3	Environmental
4.			and degradation			sciences by Barucha
						Anji reddy
						Anubha kaushik
	5/12/12	1	Deforestation	2	2	Environmental
5.						sciences by Barucha
						Anji reddy
	5/12/12	1	desertification	3	3	Environmental
6.						sciences by Barucha,
						kaushik
	6/12/12	1	Technological solutions,	3	3	Environmental
7.			preventive methods			sciences by Barucha
						and Anji reddy
						Anubha kaushik
	6/12/12	1	control techniques	3	3	Environmental
8.						sciences by Barucha,
						kaushik
	12/12/12	1	Green belt development, rain	3	3	Environmental
9.			water harvesting			sciences by Barucha,
						kaushik
	19/12/12	1	Renewable resources,	3	3	Environmental
10.			Alternate resources			sciences by Barucha,
					Crilolz	kaushik

Srilakshmi

Signature of HOD

Date:

Signature of faculty
Date:

Note: 1. ENSURE THAT ALL TOPICS SPECIFIED IN THE COURSE ARE MENTIONED.

2. ADDITIONAL TOPICS COVERED, IF ANY, MAY ALSO BE SPECIFIED IN BOLD



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### SCHEDULE OF INSTRUCTIONS **UNIT PLAN**

Academic Year	: 2012-2013	
Semester	: I	UNIT NO.:5
Name of the Program:	B.TechBiotechnology	Year: 1 Section: A
Course/Subject:Env	ironmenta science	Course Code:GR11A1009
Name of the Faculty: .	Srilakshmi	Dept.: Basic Science
Designation: ASST.Pl	ROFESSOR/ ASSOCIATE PROF.	ESSOR/ PROFESSOR/HOD.

		No. of				
Lesson	Date	Periods	Topics / Sub - Topics	Objectives	Outcomes	(Te

Lesson No.	Date	No. of Periods	Topics / Sub - Topics	Objectives Nos.	Outcomes Nos.	References (Text Book, Journal) Page Nos.:to
1.	20/21/12	1	pollution prevention act	4	4&4	Environmental sciences by Barucha and Anji reddy Anubha kaushik
2.	20/12/12	1	Air ,water pollution act	3	3&3	Environmental sciences by Barucha and Anji reddy
3.	26/12/12	1	water pollution	3	3&3	Environmental sciences by Barucha, Anubha kaushik Anji reddy
4.	26/1/13	1	wild life protection act environmental ethics and economics	3	3&3	Environmental sciences by Barucha Anji reddy Anubha kaushik
5.	27/1/13	1	Forest conservation Municipal solid waste Causes, threats to sustainability	2	2&2	Environmental sciences by Barucha Anji reddy
6.	2/1/13	1	biomedical waste, hazardous waste handling act	2	2&2	Environmental sciences by Barucha, kaushik
7.	3/1/13	1	Role of IT in environment,	2	2&2	Environmental sciences by Barucha and Anji reddy Anubha kaushik
8.	9/1/13	1	environmental ethics, environmental economics	2	2	Environmental sciences by Barucha and Anji reddy Anubha kaushik
9.	10/1/13	1	Concept of green building	2	2	Environmental sciences by Barucha and Anji reddy Anubha kaushik

				2	2	Environmental
10.	10/1/13	1	Clean development			sciences by Barucha
			mechanism			and Anji reddy
						Anubha kaushik

Srilakshmi

Signature of HOD Date: Signature of faculty Date:

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Academic Year	: 2012-2013	Date:25/10/12.
Semester	: I	
Name of the Program:	B.Tech Biotechnol	ogy Year:1 Section: A
Course/Subject: Enviro	onmental science	
Name of the Faculty: .	Srilakshmi	DeptBasic science
Designation	: ASST.PROFESSOR/ A	SSOCIATE PROFESSOR/ PROFESSOR/HOD.
This Tutorial correspon	nds to Unit No. / Lesson	1
Q1. What are the differ	rent components of ecosyst	em?
Q2. Define food chain	and food web? Give their s	significance.
Q3. What is biogeoche	mical cycle? Explain about	nitrogen cycle with a neat diagram.
Q4. What is hot-spot o biodiversity?	f diversity? What are the co	onsumptive, social and productive values of
_		which you would like to give to the students and also Questions / Problems / Exercises are related.
Objective Nos.: 4, 1. To develop insi 4)biodiversity	-	ecology3) classification and function of ecosystem and
,	They understand about envir ses and types of biodiversit	ronment 2) concept of ecosystem y.
Signature of HOD		Srilakshmi Signature of faculty
Date:		Date:



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Academic Year	: 2012-2013		Date: 5/	/11/12	
Semester	: I				
Name of the Program: B.Tech	Biotechnology .	Year:	1	Section: A	
Course/Subject: Environmenta	al science				
Name of the Faculty:Sril	akshmi	Dept	tBasic so	cience	
Designation : ASS	T.PROFESSOR/ ASSOC	CIATE PROFES	SSOR/ PRO	FESSOR/HOD.	
This Tutorial corresponds to U	Jnit No. / Lesson2				
Q1. What are the effects of ov	er utilization of ground w	vater?			
Q2. Define renewable and non	n-renewable resources wi	th example.			
Q3. What are mineral resource	es? Elaborate the impacts	of mining?			
Q4. What is the role of individ	lual in conservation of na	tural resources?	•		
Please write the Questions / Pr mention the Objectives/Outcome					
Objective Nos.: 4,  1. To develop insight abo 2. 3) impacts of excess us				2) impacts of mining	
· · · · · · · · · · · · · · · · · · ·	Outcome Nos.:41) They understand about the importance of resources 2) impacts of mining 3) Importance of water 4) forest and wild life protection				
			Srilal	kshmi	
Signature of HOD			Signatu	re of faculty	
Date:			Date:		



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Academic Year	: 2012-2013	Date:10/11/12			
Semester	: I				
Name of the Program: I	B.Tech Biotechnolo	ogy Year:1 Section: A			
Course/Subject: Enviro	nmental science				
Name of the Faculty:	Srilakshmi	Dept.:Basic science			
Designation	: ASST.PROFESSOR/ AS	SSOCIATE PROFESSOR/ PROFESSOR/HOD.			
This Tutorial correspon	ds to Unit No. / Lesson	3			
Q1. What are the advers	se effects of air pollution?				
Q2.How does noise effe	ect human health?				
Q3. Define thermal pol	lution and describe its effec	ets.			
Q4. Discuss the adverse	e effects of water pollution	?			
-		which you would like to give to the students and also Questions / Problems / Exercises are related.			
Objective Nos.: 4,  1. Gained knowledge about different types of pollutions2) agents which cause pollution 3) Classification of pollutants 4) causes, effects and control of pollution					
Outcome Nos.:41) To 3) effects of pollution 4		npacts of environmental pollution 2) causes of pollution			
Signature of HOD		Srilakshmi Signature of faculty			
Date:		Date:			



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Academic Year	: 2012-2013	Date: 20/12/12
Semester	: I	
Name of the Program: B.Tech	Biotechnology Year:	1 Section: A
Course/Subject: Environmenta	al science	
Name of the Faculty:Sril	akshmiDept.:.	Basic science
Designation : ASS	T.PROFESSOR/ ASSOCIATE PROFESSO	OR/ PROFESSOR/HOD.
This Tutorial corresponds to U	Unit No. / Lesson4	
Q1. Describe the role of ozone	e layer, shy it is so important and a cause of	worry for all the people?
Q2.What are greenhouse gases	s and greenhouse effect?	
Q3.What is rain water harvesti	ing and write their importance at the presen	t day?
Q4. Name the different types of	of natural disasters and discuss in brief about	ut them.
~	roblems / Exercises which you would like t mes to which these Questions / Problems /	•
Objective Nos.: 3, 1. To develop knowledge in o	ozone layer 2) climate change 3) rain water	harvesting
, ,	derstand about the environmental problems tion of ozone layer 4) climate change	s 2) importance of rain water
Signature of HOD		Srilakshmi Signature of faculty
Date:		Date:



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Academic Year	: 2012-2013	Date:03/1/13
Semester	: I	
Name of the Program:	B.Tech Biotechno	logy Year:1 Section: A
Course/Subject: Enviro	onmental science	
Name of the Faculty: .	Srilakshmi	Dept.:Basic science
Designation	: ASST.PROFESSOR/ A	ASSOCIATE PROFESSOR/ PROFESSOR/HOD.
This Tutorial correspon	nds to Unit No. / Lesson	5
Q1. Define sustainable	development? Why it is n	ecessary?
Q2.Discuss about the c	oncept of green buildings,	why it is becoming very popular now a days?
Q3.Discuss the role of	IT specifically in environi	ment protection?
Q4.What are the basic	principles of natural envir	onmental policy?
-		which you would like to give to the students and also Questions / Problems / Exercises are related.
	-	out environment protection 2) Disposable methods of ing and role of IT in environment.
Outcome Nos.:31) T concept of green buildi	-	environment protection 2) Disposable methods 3)
Signature of HOD		Srilakshmi Signature of faculty
Date:		Date:



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#### **LESSON PLAN**

Academic Year	: 2012-2013	Date: 1/11/12
Semester	: I	
Name of the Program: E	3.Tech Biotechnology	Year:1 Section: A
Course/Subject:Envi	ronmental science	
Name of the Faculty:	.Srilakshmi	Dept.: Basic science
Designation: ASST.PR	OFESSOR/ ASSOCIATE I	PROFESSOR/ PROFESSOR/HOD.
Lesson No:Unit(3)	) 1 Duration of L	esson: <u>1hrs</u>
Lesson Title: definition	of pollution, Classification	of pollution
Classification of pollution	on	
INSTRUCTIONAL/LE. On completion of this le 1 To understand about d 2. Classification of pollu TEACHING AIDS TEACHING POINTS	esson the student shall be all lefinition of pollution ution  : White board teaching	
What is pollution Different types of pol		
Assignment / Questions Q1.What is mean	: nt by pollution?	

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Note: Mention for each question the relevant Objectives and Outcomes Nos.4&4

Q2. What are the different types of pollution



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#### **LESSON PLAN**

Academic Year	: 2012-2013		Date: 1/11/12	
Semester	: I			
Name of the Program:	B.Tech Biotechnology	Year:1	Section: A	
Course/Subject:Env	ironmental science	Cou	rse Code:GRA11009	
Name of the Faculty: .	Srilakshmi		Dept.: Basic science	
Designation: ASST.Pl	ROFESSOR/ ASSOCIATI	E PROFESSOR/ PR	OFESSOR/HOD.	
Lesson No:Unit(	3) 2 Duration of	Lesson: 1hrs		
On completion of this	tion of pollutants ESSON OBJECTIVES: lesson the student shall be lassification of pollutants	able to:		
TEACHING AIDS TEACHING POINTS	: White board teaching :			
	ical, chemical and biologi	cal pollutants preser	t in environment	
Assignment / Question	s: ants are classified?			
- 1	e Physical, chemical and b	piological pollutants	present in environment?	

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### **LESSON PLAN**

Academic Year	: 2012-2013	Date: 7/11/12
Semester	: I	
Name of the Program: B	.Tech Biotechnology	Year:1 Section: A
Course/Subject:Envir	onmental science	
Name of the Faculty:	Srilakshmi	Dept.: Basic science
Designation: ASST.PRO	DFESSOR/ ASSOCIATE PRO	OFESSOR/ PROFESSOR/HOD.
Lesson No:Unit(3)	3 Duration of Less	on: <u>1hrs</u>
Lesson Title: air pollutio	n	
INSTRUCTIONAL/LES On completion of this les	SSON OBJECTIVES: sson the student shall be able	to:
1 To understand about cl	assification of air pollutants	
2. Causes of air pollution	ı	
TEACHING AIDS TEACHING POINTS	: White board teaching :	
Classification of air po	ollutants	
Causes of air pollution	ı	
Assignment / Questions:	stants are classified?	
Z 1.110 W uni pont	turing are crapping.	

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Note: Mention for each question the relevant Objectives and Outcomes Nos.3&3

Q2. What are the causes of air pollution?



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#### **LESSON PLAN**

Academic Year	: 2012-2013	Date: 7/11/12
Semester	: I	
Name of the Program: B.	Гесh Biotechnology	Year:1 Section: A
Course/Subject:Enviro	onmental science	
Name of the Faculty:S	rilakshmi	Dept.: Basic science
Designation: ASST.PRO	FESSOR/ ASSOCIATE	E PROFESSOR/ PROFESSOR/HOD.
Lesson No:Unit(3).	4 Duration of	Lesson: <u>1hrs</u>
Lesson Title: air pollution	1	
INSTRUCTIONAL/LESS		able to:
On completion of this les	son the student shall be	able to:
1 To understand about eff	ects of air pollution	
2. Control of air pollution	ı	
TEACHING AIDS : TEACHING POINTS	White board teaching:	
Effects of air pollution		
Control of air pollution	I	
Assignment / Questions:		
Q1.What are the n	najor impacts of air pol	lution?

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Note: Mention for each question the relevant Objectives and Outcomes Nos.3&3

Q2. What are the control measures of air pollution?



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#### **LESSON PLAN**

Academic Year	: 2012-2013	Date: 8/11/12
Semester	: I	
Name of the Program: B.Te	ch Biotechnology	Year:1 Section: A
Course/Subject:Environr	mental science	
Name of the Faculty:Sril	akshmi	Dept.: Basic science
Designation: ASST.PROFE	ESSOR/ ASSOCIATE	E PROFESSOR/ PROFESSOR/HOD.
Lesson No:Unit(3)	5 Duration of	Lesson: <u>1hrs</u>
Lesson Title: water pollutio	n	
INSTRUCTIONAL/LESSO On completion of this lesson	•	able to:
1 To understand about cause	es of water pollution	
2. Effects of water pollution	n	
TEACHING AIDS : W TEACHING POINTS :	hite board teaching	
Causes of water pollution	ı	
Effects of water pollution	1	
Assignment / Questions:	ion imports of oir == 11	ution?

Q1. What are the major impacts of air pollution?

Q2.Write briefly about causes of air pollution?

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#### **LESSON PLAN**

Academic Year	: 2012-2013		Dat	te: 8/11/12	
Semester	: I				
Name of the Program: B.Tec	h Biotechnology	Year:	1	Section: A	
Course/Subject:Environm	nental science		Course Code	:GRA11009	
Name of the Faculty:Srila	ıkshmi		Dept.: Ba	sic science	
Designation: ASST.PROFE	SSOR/ ASSOCIATE	E PROFESSOR	/ PROFESSO	R/HOD.	
Lesson No:Unit(3)	. 6 Duration of	Lesson: 1hrs			
Lesson Title: water pollution	l				
INSTRUCTIONAL/LESSO On completion of this lesson		able to:			
1 To understand about control 2 Effects of water pollution	ol of water pollution				
TEL CHILD DODIEG	hite board teaching				
Control of water pollution					
Effects of water pollution					
Assignment / Questions:					

Q1.Discuss about adverse effects of water pollution and what techniques can be applied to control it, discuss using a pollution source.

Q2. Give a short note on sewage treatment method?

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#### **LESSON PLAN**

Academic Year	: 2012-2013	Date: 14/11/12
Semester	: I	
Name of the Program: B.Tec	h Biotechnology	Year: Section: A
Course/Subject:Environm	ental science	
Name of the Faculty:Srila	kshmi	Dept.: Basic science
Designation: ASST.PROFES	SSOR/ ASSOCIATE	E PROFESSOR/ PROFESSOR/HOD.
Lesson No:Unit(3)	. 8 Duration of	Lesson: <u>1hrs</u>
Lesson Title: marine pollutio	n	
INSTRUCTIONAL/LESSON On completion of this lesson		able to:
1 To understand about effects	s of marine pollution	
2. Control of marine pollution	n	
TELLOUING DODIEG	nite board teaching	
Effects of marine pollution	1	
Control of marine pollution	n	
Assignment / Questions:		

Q1.Briefly discuss about the control measures of marine pollution? Q2.Mention few adverse effects of marine pollution?

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#### **LESSON PLAN**

Academic Year	: 2012-2013	Date: 21/11/12
Semester	: I	
Name of the Program: B	.Tech Biotechnology	Year:1 Section: A
Course/Subject:Envir	onmental science	
Name of the Faculty:	Srilakshmi	Dept.: Basic science
Designation: ASST.PRO	OFESSOR/ ASSOCIATE I	PROFESSOR/PROFESSOR/HOD.
Lesson No:Unit(3)	9 Duration of Le	esson: <u>1hrs</u>
Lesson Title: noise and t	hermal pollution	
INSTRUCTIONAL/LES On completion of this les	SSON OBJECTIVES: sson the student shall be ab	le to:
1 To understand about so	ources, effects and Control	of noise pollution
2. Sources, effects and co	ontrol of thermal pollution	
TEACHING AIDS TEACHING POINTS	: White board teaching :	
sources, effects and C	ontrol of noise pollution	
sources, effects and co	ontrol of thermal pollution	
Assignment / Questions:		

Assignment / Questions:

Q1.Briefly discuss about the sources, effects and control of noise pollution?

Q2.Discuss briefly discuss about the sources, effects and control of noise pollution?

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#### **LESSON PLAN**

Academic Year	: 2012-2013	Date: 22/11/12
Semester	: I	
Name of the Program: B.Tec	ch Biotechnology	Year: Section: A
Course/Subject:Environm	nental science	
Name of the Faculty:Srila	ıkshmi	Dept.: Basic science
Designation: ASST.PROFE	SSOR/ ASSOCIATE	PROFESSOR/ PROFESSOR/HOD.
Lesson No:Unit(3)	. 10 Duration of	Lesson: 1hrs
Lesson Title: Nuclear polluti	ion	
INSTRUCTIONAL/LESSO On completion of this lesson		able to:
1 To understand about source	es, effects nuclear po	llution
2. Control of nuclear pollution	on	
TEACHING AIDS : W TEACHING POINTS :	hite board teaching	
sources, effects nuclear po	ollution	
control of thermal pollution	on	
Assignment / Questions:		

Q1. What are the adverse effects and control of nuclear pollution?

Q2.Discuss briefly discuss about the sources of nuclear pollution and how they lead to pollution of the ecosystem?

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#### **LESSON PLAN**

Academic Year	: 2012-2013	Date: 28/11/12
Semester	: I	
Name of the Program:	B.Tech Biotechnology	Year: Section: A
Course/Subject:Env	ironmental science	
Name of the Faculty:	.Srilakshmi	Dept.: Basic science
Designation: ASST.PF	ROFESSOR/ ASSOCIATE	PROFESSOR/PROFESSOR/HOD.
Lesson No:Unit(4	) 1 Duration of I	Lesson: 1hrs
Lesson Title: Natural d	isasters and global warming	g
INSTRUCTIONAL/LE On completion of this l	ESSON OBJECTIVES: esson the student shall be a	ble to:
1 To understand the eff	ects of natural disasters	
2. Global warming		
TEACHING AIDS TEACHING POINTS	: Black board teaching	
Global warming Natural disasters and	their effects	
Assignment / Questions	s:	

- Q1. What is meant by Disaster? What are the different types of disasters?
- Q2. What is global warming what is contributing to this global phenomenon?
- Q3. What is the definition of flood? What causes flood?

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#### **LESSON PLAN**

Academic Year	: 2012-2013	Date: 28/11/12
Semester	: I	
Name of the Program:	B.Tech Biotechnology Y	ear: Section: A
Course/Subject:Env	ironmental science	Course Code:GRA11009
Name of the Faculty:	.Srilakshmi	Dept.: Basic science
Designation: ASST.PR	OFESSOR/ ASSOCIATE PROI	FESSOR/ PROFESSOR/HOD.
Lesson No:Unit(4	) 2 Duration of Lesson	: <u>1hrs</u>
Lesson Title: Global wa	arming and climate change	
INSTRUCTIONAL/LE On completion of this l	SSON OBJECTIVES: esson the student shall be able to	:
1 To understand about	climate change	
2. Global warming		
TEACHING AIDS TEACHING POINTS	: White board teaching :	
1. Climate change		
2. Effects of global v	varming	
Assignment / Questions		

Q1. Differentiate climatic change?

Q2. What are the effect of change in climate

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### **LESSON PLAN**

Academic Year	: 2012-2013	Date: 29/11/12
Semester Name of the Program: B	: I Tech Biotechnology	Year:1 Section: A
Course/Subject:Envir	ronmental science	
Name of the Faculty:	Srilakshmi	Dept.: Basic science
Designation: ASST.PRO	OFESSOR/ ASSOCIATE F	PROFESSOR/PROFESSOR/HOD.
Lesson No:Unit(4)	3 Duration of Le	esson: 1 <u>hrs</u>
Lesson Title: Ozone laye	er-role and effects	
INSTRUCTIONAL/LES On completion of this le	SSON OBJECTIVES: sson the student shall be ab	le to:
1 To understand about in	mportance of ozone layer	
2. Effects of depletion of	f ozone layer	
3. Role of ozone layer		
TEACHING AIDS TEACHING POINTS	: White board and Marke	er
Role of ozone layer Effects of depletion of importance of ozone l	•	
Assignment / Questions:		

- Q1. Describe the role of ozone layer, why it is so important and a cause of worry for all the people?
- Q2. What is the importance of ozone layer?
- Q3. Effects of ozone depletion?

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### **LESSON PLAN**

Academic Year	: 2012-2013		Date	: 29/12/12
Semester Name of the Program: B.Tech	: I Biotechnology	Year:	1	ection: A
Course/Subject:Environme	ental science		Course Code: .	GRA11009
Name of the Faculty:Srilak	shmi		Dept.: Basi	ic science
Designation: ASST.PROFES	SOR/ ASSOCIATE 1	PROFESSOR/	PROFESSOR	/HOD.
Lesson No:Unit(4)	4 Duration of L	esson: <u>1hrs</u>		
Lesson Title: Formation of oz	one layer and ozone	depleting subst	ances	
INSTRUCTIONAL/LESSON On completion of this lesson to 1 To understand about format 2. Ozone depleting substances TEACHING AIDS : W TEACHING POINTS :	the student shall be at	ole to:		
How ozone is formed?  Substances that deplete the	ozone layer?			
Assignment / Questions: Q1. How is the ozone	•		chemical reac	etions.

Q2. What are ozone depleting substances?

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### **LESSON PLAN**

Academic Year	: 2012-2013	Date:5/11/12
Semester	: I	
Name of the Program: B.Te	ch Biotechnology	Year: Section: A
Course/Subject:Environr	mental science	
Name of the Faculty:Sril	akshmi	Dept.: Basic science
Designation: ASST.PROFE	ESSOR/ ASSOCIATI	E PROFESSOR/ PROFESSOR/HOD.
Lesson No:Unit(4)	5 Duratio	n of Lesson: <u>1hrs</u>
Lesson Title: Deforestation		
INSTRUCTIONAL/LESSO On completion of this lesso 1. Gained knowledge about 2. Causes 3. Effects of deforestation	n the student shall be	able to:
4. Role of IT in environmen	•	
TEACHING AIDS : 'TEACHING POINTS :	wnite board teaching	
Deforestation Causes and effects.		
Assignment / Questions:		

- Q1. What is deforestation? What are the processes by which this can take place?
- Q2. Using one process of deforestation, explain the ultimate consequences.

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### LESSON PLAN

Academic Year	: 2012-2013	Date:5/11/12
Semester	: I	
Name of the Program: B.T	ech Biotechnology	Year: Section: A
Course/Subject:Enviror	nmental science	
Name of the Faculty:Sr	ilakshmi	Dept.: Basic science
Designation: ASST.PROF	ESSOR/ ASSOCIATI	E PROFESSOR/ PROFESSOR/HOD.
Lesson No:Unit(4)	6 Duratio	n of Lesson: <u>1hrs</u>
Lesson Title: Desertification	on	
INSTRUCTIONAL/LESS On completion of this lesse 1. Understand about Dese 2. Causes 3. Effects of Desertification	on the student shall be rtification	able to:
TEACHING AIDS : TEACHING POINTS :	White board teaching	
Desertification Causes and Effects of D	esertification	
Assignment / Ougstions		

Assignment / Questions:

- Q1. What is desertification? What are the processes by which this can take place?
- Q2. What are the mechanisms which lead to desertification?
- Q3. What are the effects of desertification?

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### **LESSON PLAN**

Academic Year	: 2012-2013	Date:6/11/12
Semester	: I	
Name of the Program: B.7	Tech Biotechnology	Year: Section: A
Course/Subject:Enviro	nmental science	
Name of the Faculty:Sr	rilakshmi	Dept.: Basic science
Designation: ASST.PRO	FESSOR/ ASSOCIATE	PROFESSOR/ PROFESSOR/HOD.
Lesson No:Unit(4)	7 Duration	n of Lesson: 1hrs
Lesson Title: Technologic	al solutions, preventive	methods, control techniques
INSTRUCTIONAL/LESS	ON OBJECTIVES:	
On completion of this less		able to:
<ol> <li>Understand about Tech</li> <li>Preventive methods</li> </ol>	inological solutions	
2. Trevenire mediads		
	: White board teaching	
TEACHING POINTS :		
Technological solutions	about environmental in	mpacts
Preventive methods		
Assignment / Questions:		

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Note: Mention for each question the relevant Objectives and Outcomes Nos.3&3

Q2 What are the Technological solutions to prevent the environmental impacts

Q1. What is EIA? Draw a flow chart of EIA methodology?



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### **LESSON PLAN**

Academic Year	: 2012-2013		Date:	6/12/12
Semester	: I			
Name of the Program: B.Tec	h Biotechnology	Year:1.	Se	ction: A
Course/Subject:Environm	ental science	Cour	rse Code:	.GRA11009
Name of the Faculty:Srila	kshmi		Dept.: Basic	science
Designation: ASST.PROFES	SSOR/ ASSOCIATE I	PROFESSOR/ PRO	DFESSOR/I	HOD.
Lesson No:Unit(4)	8 Duration	of Lesson: 1hrs		
Lesson Title: Technological	solutions, preventive n	nethods, control tec	chniques	
INSTRUCTIONAL/LESSON On completion of this lesson 1. Understand about control	the student shall be ab			
TEACHING AIDS : W TEACHING POINTS :	White board teaching			
Different Control techniqu	es about environmenta	al impacts		
Assignment / Questions:				

Q1. What are the control techniques to reduce the impacts?

Q2. What are the goals of environmental impact assessment?

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### **LESSON PLAN**

Academic Year	: 2012-2013	Date:12/12/12
Semester	: I	
Name of the Program: B	.Tech Biotechnology	Year: Section: A
Course/Subject:Envir	onmental science	
Name of the Faculty:	Srilakshmi	Dept.: Basic science
Designation: ASST.PRO	OFESSOR/ ASSOCIATE	PROFESSOR/PROFESSOR/HOD.
Lesson No:Unit(4)	9 Duration	n of Lesson: 1hrs
Lesson Title: Green belt	development	
INSTRUCTIONAL/LES On completion of this les 1. Understand about G 2. Importance of green	sson the student shall be a reen belt.	able to:
TEACHING AIDS TEACHING POINTS	: White board teaching :	
What is green belt? What is its importance	e in the present day?	
Assignment / Questions:		

Q1. What is Green belt development?

Q2. What is the advantages and disadvantages of Green belt development?

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### **LESSON PLAN**

Academic Year	: 2012-2013	Date:12/12/12
Semester	: I	
Name of the Program: B.	Tech Biotechnology	Year:1 Section: A
Course/Subject:Enviro	onmental science	
Name of the Faculty:S	rilakshmi	Dept.: Basic science
Designation: ASST.PRO	FESSOR/ ASSOCIAT	E PROFESSOR/ PROFESSOR/HOD.
Lesson No:Unit(4).	10 Durati	on of Lesson: <u>1hrs</u>
Lesson Title: Rain water	harvesting	
INSTRUCTIONAL/LES: On completion of this les 1. Understand about Ra 2. Importance and meth	son the student shall be in water harvesting met	
TEACHING AIDS TEACHING POINTS TEACHING POINTS	: White board teaching :	;
Rain water harvesting Importance and method		

Assignment / Questions:

Q1. What is Rain water harvesting? Explain with diagram.

Q2. What are the advantages rain water harvesting?

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### **LESSON PLAN**

Academic Year	: 2012-2013	Date:13/12/12
Semester	: I	
Name of the Program: I	B.Tech Biotechnology	Year:1. Section: A
Course/Subject:Envi	ronmental science	
Name of the Faculty:	.Srilakshmi	Dept.: Basic science
Designation: ASST.PR	OFESSOR/ ASSOCIATE I	PROFESSOR/PROFESSOR/HOD.
Lesson No:Unit(4	)11 Duration	of Lesson: <u>1hrs</u>
Lesson Title: Renewabl	e resources	
INSTRUCTIONAL/LE On completion of this le 1. Understand about r 2. Importance of rene	esson the student shall be all enewable resources	ple to:
TEACHING AIDS TEACHING POINTS	: White board teaching	
<ol> <li>about renewable</li> <li>Importance of re</li> </ol>	resources newable resources	
Assignment / Questions	:	

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Note: Mention for each question the relevant Objectives and Outcomes Nos.3&3

Q1.Discuss the renewable resources available for humanity that are ecofriendly.

Q2.Importance of renewable resources.



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#### **LESSON PLAN**

Academic Year	: 2012-2013	Date:13/12/12
Semester	: I	
Name of the Program: B.Tecl	n Biotechnology	Year:1 Section: A
Course/Subject:Environme	ental science	
Name of the Faculty:Srilal	kshmi	Dept.: Basic science
Designation: ASST.PROFES	SSOR/ ASSOCIATE I	PROFESSOR/ PROFESSOR/HOD.
Lesson No:Unit(4)	12 Duration	of Lesson: 1hrs
Lesson Title: Renewable reso	urces	
INSTRUCTIONAL/LESSON On completion of this lesson 1. Understand about renewa 2. Importance of renewable	the student shall be atable resources	ple to:
TEACHING AIDS : W TEACHING POINTS :	Thite board teaching	
renewable resources     Importance of renewables	ole resources	

Assignment / Questions:

Q1.Uses of renewable resources

Q2. What is the need of Preservation of renewable resources.

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#### **LESSON PLAN**

Academic Year	: 2012-2013	Date:19/12/12
Semester	: I	
Name of the Program: B.	Гесh Biotechnology	Year:1 Section: A
Course/Subject:Enviro	onmental science	
Name of the Faculty:S	rilakshmi	Dept.: Basic science
Designation: ASST.PRO	FESSOR/ ASSOCIATE	PROFESSOR/PROFESSOR/HOD.
Lesson No:Unit(4).	13 Duratio	on of Lesson: <u>1hrs</u>
Lesson Title: Alternate re	sources	
INSTRUCTIONAL/LESS On completion of this less 1. Understand about alto 2. Importance of alternation	son the student shall be a	
TEACHING AIDS TEACHING POINTS	: White board teaching	
Assignment / Questions:		
Q1.Uses of alternate rene	wable resources	

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Note: Mention for each question the relevant Objectives and Outcomes Nos.3&3

Q2. What is the need of Preservation of alternate renewable resources.



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#### **LESSON PLAN**

Academic Year	: 2012-2013	Date:19/12/12
Semester	: I	
Name of the Program: B.Te	ech Biotechnology	Year: Section: A
Course/Subject:Environi	mental science	
Name of the Faculty:Sril	lakshmi	Dept.: Basic science
Designation: ASST.PROFI	ESSOR/ ASSOCIATE	PROFESSOR/PROFESSOR/HOD.
Lesson No:Unit(4)	14 Duratio	n of Lesson: 1hrs
Lesson Title: Alternate reso	ources	
<ul> <li>INSTRUCTIONAL/LESSON OBJECTIVES:</li> <li>On completion of this lesson the student shall be able to:</li> <li>1. Understand about alternate renewable resources</li> <li>2. Importance of alternate renewable resources</li> </ul>		
TEACHING AIDS : TEACHING POINTS :	White board teaching	
alternate renewable r     Importance of alternate renewable r	resources	
Assignment / Questions:		

Assignment / Questions:

Q1.Discuss the alternate resources available for humanity that are ecofriendly.

Q2.Importance of alternate resource

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#### **LESSON PLAN**

Academic Year	: 2012-2013	Date:20/12/12
Semester	: I	
Name of the Program: I	B.Tech Biotechnology	Year:1 Section: A
Course/Subject:Env	ronmental science	
Name of the Faculty:	.Srilakshmi	Dept.: Basic science
Designation: ASST.PR	OFESSOR/ ASSOCIATE	PROFESSOR/PROFESSOR/HOD.
Lesson No:Unit(5	)1 Duration	n of Lesson: 1hrs
Lesson Title: Pollution	Act	
INSTRUCTIONAL/LE On completion of this le 1. Understand about po 2. Water and air pollution	esson the student shall be llution Act	able to:
TEACHING AIDS TEACHING POINTS	: White board teaching :	
pollution Act Water and air pollution	on Act	
Assignment / Questions	<b>:</b>	

Q1.Discuss the salient features of environment (protection) Act, 1986.

Q2. Discuss the salient features of environment (protection) Act, 1981

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Note: Mention for each question the relevant Objectives and Outcomes Nos.3&3

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#### **LESSON PLAN**

Academic Year	: 2012-2013	Date:26/12/12
Semester	: I	
Name of the Program: B.Te	ech Biotechnology	Year:1. Section: A
Course/Subject:Environ	mental science	
Name of the Faculty:Sri	lakshmi	Dept.: Basic science
Designation: ASST.PROF.	ESSOR/ ASSOCIATE	PROFESSOR/PROFESSOR/HOD.
Lesson No:Unit(5)	2 Duration	of Lesson: 1hrs
Lesson Title: Conservation	Act	
INSTRUCTIONAL/LESSO On completion of this lesso 1. Understand about Forest 2. Wild life protection Act TEACHING AIDS : TEACHING POINTS :	on the student shall be a conservation Act  White board teaching	
Forest conservation Act Wild life protection Act		
Assignment / Questions: Q1. What re the major prov	visions in the Forest Ac	et 1980?

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Note: Mention for each question the relevant Objectives and Outcomes Nos.3&3

Q2. Discuss the salient features of wild life (protection)?



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### **LESSON PLAN**

Academic Year	: 2012-2013	Date:27/12/12
Semester	: I	
Name of the Progra	m: B.Tech Biotechnology	Year:1 Section: A
Course/Subject:l	Environmental science	
Name of the Faculty	y:Srilakshmi	Dept.: Basic science
Designation: ASST	T.PROFESSOR/ ASSOCIATE F	PROFESSOR/PROFESSOR/HOD.
Lesson No:Ur	nit(5) Duration of	of Lesson: 1hrs
Lesson Title: Dispo	sable methods	
On completion of the	LESSON OBJECTIVES:  nis lesson the student shall be ab t collection of different waste m	
TEACHING AIDS TEACHING POIN	: White board teaching TS :	
Rain water harve Importance and n	sting methods	
Assignment / Quest	ions:	

Q1. What are hazardous wastes? Discuss the rules to manage and handle them?

Q2. What are bio-medical wastes? Discuss the rules to manage and handle them?

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Note: Mention for each question the relevant Objectives and Outcomes Nos.3&3

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## **LESSON PLAN**

Academic Year	: 2012-2013		Date:27/12/12
Semester	: I		
Name of the Program: B.Te	ch Biotechnology	Year:1	Section: A
Course/Subject:Environn	nental science	Cou	rse Code:GRA11009
Name of the Faculty:Sril	akshmi		Dept.: Basic science
Designation: ASST.PROFE	ESSOR/ ASSOCIATE	PROFESSOR/ PR	OFESSOR/HOD.
Lesson No:Unit(5)	4 Duration	of Lesson: 1hrs	
Lesson Title: Disposable me	ethods		
INSTRUCTIONAL/LESSO On completion of this lessor 1. Understand about collecti 2. Safety measures	n the student shall be a		
TEACHING AIDS : V TEACHING POINTS :			
Disposable methods collection of different was Safety measures			

Assignment / Questions:

- Q1. What are municipal wastes? Discuss the rules to manage and handle them?
- Q2. What are bio-medical wastes? Discuss the rules to manage and handle them?

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Note: Mention for each question the relevant Objectives and Outcomes Nos.3&3

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#### **LESSON PLAN**

Academic Year	: 2012-2013	Date:2/1/13
Semester	: I	
Name of the Program: B.Te	ch Biotechnology	Year:1 Section: A
Course/Subject:Environr	nental science	
Name of the Faculty:Sril	akshmi	Dept.: Basic science
Designation: ASST.PROFE	ESSOR/ ASSOCIATE	PROFESSOR/PROFESSOR/HOD.
Lesson No:Unit(5)	5 Duration	n of Lesson: <u>1hrs</u>
Lesson Title: Role of inform	nation technology in e	nvironment
INSTRUCTIONAL/LESSO On completion of this lesso 1. Understand about Role of 2. Data base on environmen	n the student shall be a f information technolo	
TEACHING AIDS : YEACHING POINTS :		
Role of information technimportance of environme	nology in environment	
Assignment / Questions:		

- Q1. Discuss about role of information technology in environment protection?
- Q2. What is the importance of environmental education?

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## **LESSON PLAN**

Academic Year	: 2012-2013	Date:2/1/13
Semester	: I	
Name of the Program:	B.Tech Biotechnology Y	ear:1 Section: A
Course/Subject:Env	rironmental science	
Name of the Faculty: .	Srilakshmi	Dept.: Basic science
Designation: ASST.Pl	ROFESSOR/ ASSOCIATE PROI	FESSOR/ PROFESSOR/HOD.
Lesson No:Unit(:	5) Duration of Le	esson: <u>1hrs</u>
Lesson Title: Environn	nental ethics and economics	
		:
TEACHING AIDS TEACHING POINTS	: White board teaching :	
Environmental ethic		
Assignment / Question	s:	

Q1. What do you understand by Environmental Economics?

Q2. What is the importance of environmental education?

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#### **LESSON PLAN**

Academic Year	: 2012-2013	Date:3/1/13
Semester	: I	
Name of the Program: B.Tec	h Biotechnology Year:	1
Course/Subject:Environm	ental science	Course Code:GRA11009
Name of the Faculty:Srila	kshmi	Dept.: Basic science
Designation: ASST.PROFES	SSOR/ ASSOCIATE PROFESS	SOR/ PROFESSOR/HOD.
Lesson No:Unit(5)	7 Duration of Lesson	: <u>1hrs</u>
Lesson Title: Sustainability		
INSTRUCTIONAL/LESSON On completion of this lesson 1. Understand about Sustaina 2. Causes to Sustainability TEACHING AIDS : W	the student shall be able to:	
TEACHING POINTS :	- Intersolute teaching	
Sustainability Causes to Sustainability		
Assignment / Questions:		

- Q1. How can we see our current society to be sustainable, discuss the strategies.
- Q2. What causes Sustainability

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## **LESSON PLAN**

Academic Year Semester	2012-2013 : I	Date:3/1/13
Name of the Program: B.Tech	Biotechnology	Year:1 Section: A
Course/Subject:Environmer	ntal science	
Name of the Faculty:Srilaks	shmi	Dept.: Basic science
Designation: ASST.PROFESS	OR/ ASSOCIATE	E PROFESSOR/ PROFESSOR/HOD.
Lesson No:Unit(5)	.8 Duration	n of Lesson: <u>1hrs</u>
Lesson Title: Sustainability		
INSTRUCTIONAL/LESSON On completion of this lesson the 1. Understand about Sustainability 2. Threats to Sustainability	e student shall be	able to:
TEACHING AIDS : Wh TEACHING POINTS :	ite board teaching	
Sustainability Threats to Sustainability		
1		

Assignment / Questions:

- Q1. How can we see our current society to be sustainable, discuss the strategies?
- Q2. What are the threats facing sustainable development in the current period, explain.

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## **LESSON PLAN**

Academic Year	: 2012-2013	Date:9/1/13
Semester	: I	
Name of the Program: 1	3.Tech Biotechnology	Year: Section: A
Course/Subject:Env	ironmental science	
Name of the Faculty:	.Srilakshmi	Dept.: Basic science
Designation: ASST.PR	OFESSOR/ ASSOCIATE PI	ROFESSOR/PROFESSOR/HOD.
Lesson No:Unit(5	(i)9	f Lesson: 1hrs
Lesson Title: Green bui	lding	
INSTRUCTIONAL/LE On completion of this le 1. Understand about Gr 2. Rating of Green build	esson the student shall be ableen building	e to:
TEACHING AIDS TEACHING POINTS	: White board teaching :	
Green building Rating of Green build		
Assignment / Questions	<b>5:</b>	

- Q1. Discuss the basic characteristics of green buildings.
- Q2. Discuss about the concept of green buildings, why it is becoming very popular no a days?

Srilakshmi Signature of faculty



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## **LESSON PLAN**

Academic Year	: 2012-2013	Date:10/1/13
Semester	: I	
Name of the Program: B.T	ech Biotechnology	Year:1 Section: A
Course/Subject:Environ	mental science	
Name of the Faculty:Sr	ilakshmi	Dept.: Basic science
Designation: ASST.PROF	ESSOR/ ASSOCIATI	E PROFESSOR/ PROFESSOR/HOD.
Lesson No:Unit(5)	10 Durati	on of Lesson: <u>1hrs</u>
Lesson Title: Clean develo	pment mechanism	
INSTRUCTIONAL/LESSON On completion of this lesson 1. Understand about Clean 2. Objectives of Clean developments	on the student shall be development mechani	
TEACHING AIDS : TEACHING POINTS :	White board teaching	
Clean development mec. Objectives of Clean deve		
Assignment / Questions:	<u> </u>	

Assignment / Questions:

- Q1. Discuss about Clean development mechanism and their objectives?
- Q2. How does Clean development mechanism benefit the third world countries while helping keep the environment under control globally?

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### **COURSE SCHEDULE**

Academic	<b>Y</b> ear	:	2012-2013
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Semester : I

Name of the Program: B.Tech Biotechnology..... Year: 1... Section: A

Course/Subject: ...Environmental science........... Course Code: ...GR11A1009......

Designation: ASST.PROFESSOR/ ASSOCIATE PROFESSOR/ PROFESSOR/HOD.

The Schedule for the whole Course / Subject is:

		Duration	Total No.	
S. No.	Description	From	То	Of Periods
1.	Unit-1:Ecology	19/9/10	4/10/12	12
2.	Unit-2: Natural resources	10/10/12	31/10/12	12
3.	Unit-3: Environmental pollution	1/11/12	22/11/12	12
4.	Unit-4: Environmental problems and Management policies	28/11/12	19/12/12	14
5.	Unit-5: National policy on Environment protection and sustainability	20/12/12	10/1/13	14
6.				

Total No. of Instructional periods available for the course: .....68........... Hours / Periods



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## SCHEDULE OF INSTRUCTIONS COURSE PLAN

Academic Year : 2012-2013

Semester : I UNIT NO.: 5......

Name of the Program: B.Tech Biotechnology... Year: ...1... Section: A

Name of the Faculty: ...Srilakshmi.......Dept.: Basic science

Designation: ASST.PROFESSOR/ ASSOCIATE PROFESSOR/ PROFESSOR/HOD.

Unit No.	Lesson No.	Date	No. of Periods	Topics / Sub- Topics	Objectives	Outcomes Nos.	References (Text Book, Journal) Page Nos.:
1.	1.	20/21/12	1	pollution prevention act	4	4	Barucha and Anji reddy Anubha kaushik
2.	2.	20/12/12	1	Air ,water pollution prevention act	3	3	Barucha and Anji reddy
3.	3.	21/12/12	1	Forest conservation, wild life protection act	3	3	Barucha, Anubha kaushik Anji reddy
4.	4.	21/1/13	1	Municipal solid waste, biomedical waste	3	3	Barucha Anji reddy Anubha kaushik
5.	5.	27/1/13	1	hazardous waste handling act	2	2	Barucha Anji reddy
6.	6.	27/1/13	1	Role of IT in environment	2	2	Barucha, kaushik
7	7.	2/1/13	1	environmental ethics and economics	2	2	Barucha and Anji reddy Anubha kaushik
8	8	2/1/13	1	Causes, threats to sustainability	2	2	Barucha Anji reddy Anubha kaushik
9	9	3/1/13	1	Concept of green building	2	2	Barucha Anji reddy Anubha kaushik
10	10	10/1/13	1	Clean	2	2	Barucha Anji

			development mechanism		reddy Anubha kaushik
					Kausiiik
Srilakshmi					

Signature of HOD Signature of faculty

Date: Date:

Note: 1. ENSURE THAT ALL TOPICS SPECIFIED IN THE COURSE ARE MENTIONED.

- 2. ADDITIONAL TOPICS COVERED, IF ANY, MAY ALSO BE SPECIFIED IN BOLD 3. MENTION THE CORRESPONDING COURSE OBJECTIVE AND OUT COME NUMBERS AGAINST EACH TOPIC.



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## SCHEDULE OF INSTRUCTIONS COURSE PLAN

Academic Year : 2012-2013

Semester : I UNIT NO.: 4......

Name of the Program: B.Tech Biotechnology... Year: ...1... Section: A

Name of the Faculty: ...Srilakshmi.......Dept.: Basic science

Designation: ASST.PROFESSOR/ ASSOCIATE PROFESSOR/ PROFESSOR/HOD.

Desig	gnauon. A	1.PKUF		SSOCIATE PROFI	ESSOR/ PRO	LESSOK/UO	
Unit No.	Lesson No.	Date	No. of Periods	Topics / Sub- Topics	Objectives Nos	Outcomes Nos.	References (Text Book, Journal) Page Nos.:to
1.	1.	28/11/12	1	Types, cause, effects of natural disasters, global warming	4	4	Barucha and Anji reddy Anubha kaushik
2.	2.	28/11/12	1	Ozone layer- role, location and degradation	3	3	Barucha and Anji reddy
3.	3.	29/12/12	1	Deforestation	2	2	Barucha, Anubha kaushik
4.	4.	29/12/12	1	desertification	3	3	Barucha Anji reddy Anubha kaushik
5.	5.	5/12/12	1	Technological solutions, preventive methods	2	2	Barucha Anji reddy
6.	6.	5/12/12	1	control techniques	3	3	Barucha, kaushik
7	7.	6/12/12	1	Green belt development	3	3	Barucha and Anji reddy Anubha kaushik
8	8	6/12/12	1	rain water harvesting	2	2	Barucha and Anji reddy Anubha kaushik
9	9	12/12/12	1	Renewable resources	2	2	Barucha and Anji reddy Anubha kaushik

10	10	13/12/12	1	Alternate	2	2	Barucha and
				resources			Anji reddy
							Anubha
							kaushik

Srilakshmi Signature of faculty

Date: Date:

Note: 1. ENSURE THAT ALL TOPICS SPECIFIED IN THE COURSE ARE MENTIONED.

Signature of HOD

- 2. ADDITIONAL TOPICS COVERED, IF ANY, MAY ALSO BE SPECIFIED IN BOLD
- 3. MENTION THE CORRESPONDING COURSE OBJECTIVE AND OUT COME NUMBERS AGAINST EACH TOPIC.



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# SCHEDULE OF INSTRUCTIONS COURSE PLAN

Academic Year : 2012-2013

Semester : I UNIT NO.: 3......

Name of the Program: B.Tech Biotechnology... Year: ...1... Section: A

Name of the Faculty: ...Srilakshmi.......Dept.: Basic science Designation: ASST.PROFESSOR/ ASSOCIATE PROFESSOR/ PROFESSOR/HOD.

			No. of				References
Unit No.	Lesson No.	Date	Periods	Topics / Sub- Topics	Objectives Nos	Outcomes Nos.	(Text Book, Journal) Page Nos.:to
1.	1.	1/11/12	1	Definition, types of pollutants	4	4	Barucha and Anji reddy Anubha kaushik
2.	2.	1/11/12	1	classification of pollution,	3	3	Barucha and Anji reddy
3.	3.	7/11/12	1	Causes, effects and control of air pollution	2	2	Barucha, Anubha kaushik
4.	4.	7/11/12	1	Causes, effects and control of water pollution	3	3	Barucha Anji reddy Anubha kaushik
5.	5.	8/11/12	1	Causes, effects and control of marine	2	2	Barucha Anji reddy
6.	6.	8/11/12	1	Causes, effects and control of noise pollution	3	3	Barucha, kaushik
7	7.	14/1/12	1	effects and control of thermal pollution	3	3	Barucha and Anji reddy Anubha kaushik
8	8	14/11/12	1	effects and control of nuclear pollution	2	2	Barucha and Anji reddy Anubha kaushik
9	9	21/11/12	1	effects and control of soil pollution	2	2	Barucha and Anji reddy Anubha kaushik
10	10	22/11/12	1	Occupational hazards	2	2	Barucha and Anji reddy Anubha

						kaushik
Signature of HOD					kshmi e of faculty	
Date:			Date:			

Note: 1. Ensure that all topics specified in the course are mentioned.

2. ADDITIONAL TOPICS COVERED, IF ANY, MAY ALSO BE SPECIFIED IN BOLD

3. MENTION THE CORRESPONDING COURSE OBJECTIVE AND OUT COME NUMBERS AGAINST EACH TOPIC.



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## **COURSE OUTCOMES**

Acade	emic <b>Y</b> ear : 2012-2013						
Semes	mester : I						
Name	e of the Program: B.TechBiotechnology Year: 1 Section: A						
Cours	se/Subject:Environmental Science Course Code: GR11A1	009					
Name	e of the Faculty:SrilakshmiDept. Basic science						
Desig	nation: ASST.PROFESSOR/ ASSOCIATE PROFESSOR/ PROFESS	SOR/HOD.					
The ex	xpected outcomes of the Course/Subject are:						
S.No	Outcomes						
1	To develop knowledge of the concept of environment, ecosystem and biod	iversity.					
2	To develop positive and negative effects of different natural resources.						
3	To develop knowledge about the pollution causing agents and their effects.						
4	To develop awareness about the role of ozone layer, importance of rain water harvesting and climate change.						
5	To develop awareness about environmental protection and sustainability.						
Signat	Srilakshmi Signature of HOD Signature of faculty						
Date:	Date: Date:						

Note: Please refer to Bloom's Taxonomy, to know the illustrative verbs that can be used to state the outc



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## ASSIGNMENT SHEET – 4

Academic Year	: 2012-2013	Date:
Semester	: I	
Name of the Program: I	B.TechBiotechnology	Year:1 Section: A
Course/Subject:Er	nvironmental science	
Name of the Faculty:	Srilakshmi	Dept.:Basic science
Designation : ASST.	PROFESSOR/ ASSOCIAT	E PROFESSOR/ PROFESSOR/HOD.
This Assignment corres	ponds to Unit No. / Lesson	4
Q1. Describe the role o	f ozone layer, shy it is so in	nportant and a cause of worry for all the people?
Q2.What are greenhous	e gases and greenhouse effe	ect?
Q3.What is rain water h	arvesting and write their in	nportance at the present day?
Q4. Name the different	types of natural disasters ar	nd discuss in brief about them.
_		which you would like to give to the students and also Questions / Problems / Exercises are related.
Objective Nos.: 3, To do	evelop knowledge in ozone	layer 2) climate change 3) rain water harvesting
	ey understand about the end f depletion of ozone layer 4	vironmental problems 2) importance of rain water ) climate change.
Signature of HOD		Srilakshmi Signature of faculty
Date:		Date:



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### ASSIGNMENT SHEET – 5

Academic Year	: 2012-2013	Date:
Semester	: I	
Name of the Program: 1	B.TechBiotechnology	y Year:1 Section: A
Course/Subject:En	nvironmental science	
Name of the Faculty:	Srilakshmi	Dept.: Basic science
Designation : ASST.	PROFESSOR/ ASSOC	IATE PROFESSOR/PROFESSOR/HOD.
This Assignment corres	sponds to Unit No. / Les	son5
Q1. Define sustainable	development? Why it is	necessary?
Q2.Discuss about the co	oncept of green building	s, why it is becoming very popular now a days?
Q3.Discuss the role of l	T specifically in enviro	nment protection?
Q4.What are the basic p	principles of natural env	ironmental policy?
_		es which you would like to give to the students and also se Questions / Problems / Exercises are related.
various waste materials	3) concept of green builthey understand about the	about environment protection 2) Disposable methods of lding and role of IT in environment. ne environment protection 2) Disposable methods
Signature of HOD		Srilakshmi Signature of faculty
Date:		Date:



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### ASSIGNMENT SHEET – 3

Academic Year	: 2012-2013	Date:
Semester	: I	
Name of the Program: B	.TechBiotechnology	Year:1 Section: A
Course/Subject:En	vironmental science	
Name of the Faculty:	Srilakshmi	Dept: Basic science
Designation : ASST.F	PROFESSOR/ ASSOCI	ATE PROFESSOR/PROFESSOR/HOD.
This Assignment corresp	onds to Unit No. / Less	son3
Q1. Define the major sou	arces of soil pollution?	
Q2.Give an account of the	ne adverse effects of air	pollution.
Q3.What are the main so	ources of marine pollution	on? Discuss about the sources.
Q4.Discuss about the adv	verse effects and contro	of water pollution?
_		es which you would like to give to the students and also e Questions / Problems / Exercises are related.
3) Role of individual in o	controlling pollution	pollution 2) causes, effects and control of water pollution e environmental pollution 2) causes, effects and control of
Signature of HOD		Srilakshmi Signature of faculty
Date:		Date:



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#### **COURSE COMPLETION STATUS**

Academic Year : 2012-2013			
Semester : I			
Name of the Program: B.TechBiotechnology Yea	r:1 Section	on: A	
Course/Subject:Environmental science	Course Code: C	GR11A1009	
Name of the Faculty:SrilakshmiDept.: Basic	e science		
Designation: ASST.PROFESSOR/ ASSOCIATE PROFESSOR/ PROF	ESSOR/HOD.		
Actual Date of Completion & Remarks, if any			
Units Remarks	No. of Objectives Achieved	No. of Outcomes Achieved	
Unit 1 Completed within the planned period	4	4	
Unit 2 Completed within the planned period	4	4	
Unit 3 Took some extra classes	4	4	
Unit 4 Completed within the planned period	3	4	
Unit 5 Took some extra classes	3	3	
Unit 6			
Signature of HOD	Srilakshmi Signature of faculty		
Date:	Date:		

Note: After the completion of each unit mention the number of Objectives & Outcomes Achieved.



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### **COURSE OBJECTIVES**

Acade	emic Year : 2	2012-2013				
Seme	emester : I					
Name	of the Program: B.Tech B	iotechnology Year:1 Secti	on: A			
Cours	e/Subject:Environmer	ntal science Course Code: Gl	R11A1009			
Name	of the Faculty:Srilakshr	niDept.: Basic s	science			
Desig	nation: ASST.PROFESSO	R/ ASSOCIATE PROFESSOR/ PROFES	SOR/HOD.			
On con	mpletion of this Subject/Cours	se the student shall be able to:				
S.No		Objectives				
1	They understand about conce	ept of ecosystem, biodiversity				
2	They gained information about the importance of natural resources.					
3	They understand about the pollution causing agents, how to control the pollution and its effect on human health.					
4	They understand about the importance of rain water harvesting, global warming and role of ozone layer					
5	They gained knowledge about the importance of environmental protection, disposable methods of waste material.					
6						
Signa	Srilakshmi Signature of HOD Signature of faculty					
Date:	Date:					

Note: Please refer to Bloom's Taxonomy, to know the illustrative verbs that can be used to state the objectives.



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Academic Year	: 2012-2013		Date:
Semester	: I		
Name of the Program: B.7	ech Biotechnology	Year:	1 Section: A / B /C /D
Course/Subject: Environm	nental science		
Name of the Faculty:	.Srilakshmi	Dept	Basic science
Designation :	ASST.PROFESSOR/ ASSO	OCIATE PROFES	SOR/ PROFESSOR/HOD.
This Tutorial corresponds	to Unit No. / Lesson1		
Q1. What are the different	components of ecosystem	?	
Q2. Define food chain and	I food web? Give their sign	ificance.	
Q3. What is biogeochemic	cal cycle? Explain about nit	rogen cycle with a	a neat diagram.
Q4. What is hot-spot of di biodiversity?	versity? What are the consu	imptive, social an	d productive values of
_	s / Problems / Exercises who atcomes to which these Que	•	e to give to the students and also / Exercises are related.
Objective Nos.: 4, 2. To develop insight 4)biodiversity	about environment 2) ecol	ogy3) classificatio	on and function of ecosystem and
Outcome Nos.:41) They 3) Biodiversity 4) values	understand about environal and types of biodiversity.	ment 2) concept of	f ecosystem
Signature of HOD			Srilakshmi Signature of faculty
Date:			Date:



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Academic Year	: 2012-2013	Date:
Semester	: I	
Name of the Program: I	B.Tech Biotechnol	ogy Year: Section: A / B /C /D
Course/Subject: Environ	nmental science	
Name of the Faculty:	Srilakshmi	Dept.:Basic science
Designation	: ASST.PROFESSOR/ A	SSOCIATE PROFESSOR/ PROFESSOR/HOD.
This Tutorial correspon	ds to Unit No. / Lesson	2
Q1. What are the effects	s of over utilization of gro	und water?
Q2. Define renewable a	nd non-renewable resourc	es with example.
Q3. What are mineral re	esources? Elaborate the im	pacts of mining?
Q4. What is the role of	individual in conservation	of natural resources?
_		which you would like to give to the students and also Questions / Problems / Exercises are related.
1		dual in conservation of resources 2) impacts of mining forest and wild life protection
	ney understand about the i 4) forest and wild life pro	mportance of resources 2) impacts of mining tection
		Srilakshmi
Signature of HOD		Signature of faculty
Date:		Date:



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Academic Year	: 2012-2013	Date:
Semester	: I	
Name of the Program: I	B.Tech Biotechnolo	ogy Year: Section: A / B /C /D
Course/Subject: Enviro	nmental science	
Name of the Faculty:	Srilakshmi	Dept.:Basic science
Designation	: ASST.PROFESSOR/ AS	SSOCIATE PROFESSOR/ PROFESSOR/HOD.
This Tutorial correspon	ds to Unit No. / Lesson	3
Q1. What are the advers	se effects of air pollution?	
Q2.How does noise effe	ect human health?	
Q3. Define thermal pol	ution and describe its effect	ets.
Q4. Discuss the adverse	e effects of water pollution	?
-		which you would like to give to the students and also Questions / Problems / Exercises are related.
	ge about different types of pollutants 4) causes, effect	pollutions2) agents which cause pollution s and control of pollution
Outcome Nos.:41) To 3) effects of pollution 4	_	npacts of environmental pollution 2) causes of pollution
Signature of HOD		Srilakshmi Signature of faculty
Date:		Date:



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Academic Year	: 2012-2013	Date:
Semester	: I	
Name of the Program: B	Tech Biotechnol	ogy Year: Section: A / B /C /D
Course/Subject: Enviror	nmental science	
Name of the Faculty:	Srilakshmi	Dept.:Basic science
Designation :	ASST.PROFESSOR/ AS	SSOCIATE PROFESSOR/ PROFESSOR/HOD.
This Tutorial correspond	ls to Unit No. / Lesson	4
Q1. Describe the role of	ozone layer, shy it is so ir	mportant and a cause of worry for all the people?
Q2.What are greenhouse	e gases and greenhouse eff	Pect?
Q3.What is rain water ha	arvesting and write their in	mportance at the present day?
		nd discuss in brief about them. which you would like to give to the students and also
_		Questions / Problems / Exercises are related.
Objective Nos.: 3, 2. To develop knowled	ge in ozone layer 2) clima	te change 3) rain water harvesting
	ey understand about the endepletion of ozone layer	nvironmental problems 2) importance of rain water 4) climate change
Signature of HOD		Srilakshmi Signature of faculty
Date:		Date:



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Academic Year	: 2012-2013	Date:
Semester	: I	
Name of the Program: B	.Tech Biotechno	ology Year:1. Section: A / B /C /D
Course/Subject: Environ	mental science	
Name of the Faculty:	Srilakshmi	Dept.:Basic science
Designation :	ASST.PROFESSOR/ A	ASSOCIATE PROFESSOR/ PROFESSOR/HOD.
This Tutorial correspond	s to Unit No. / Lesson	5
Q1. Define sustainable d	•	necessary?  why it is becoming very popular now a days?
Q3.Discuss the role of I7		
Q4.What are the basic pr	inciples of natural environment	onmental policy?
_		s which you would like to give to the students and also Questions / Problems / Exercises are related.
•	1 0	out environment protection 2) Disposable methods of ling and role of IT in environment.
Outcome Nos.:31) The concept of green building		environment protection 2) Disposable methods 3)
Signature of HOD		Srilakshmi Signature of faculty
Date:		Date: