

**SCHEME OF VALUATION**

**(Scoring Indicators)**

Revision : 15

Course Code : 3001

Course Title : *Environmental Science & Disaster Manag*

Qst.No	Scoring Indicator	Split up score	Sub Total	Total
1.	Land, water, air, forests Plants, food, animals mineral, energy etc	Any two 2 x 1	2	
2.	1. Degradation of land 2. pollution of surface and ground water 3. Flood. 4. Salt loading 5. Air pollution. 6. Deforestation etc	2 x 1	2.	
3.	Decomposers transform Complex organic Compounds back into Simple inorganic Compounds like, water, CO <sub>2</sub> and other nutrients.	2.	2.	
4.	Environment pollution is an undesirable change in physical, chemical and biological characteristics of environment	2	2.	

Qn No	Scoring Indicator	Split up marks	Sub Total	Total.
5.	1. Setting of fires 2. Epidemic 3. Deforestation 4. Pollution 5 Wars.	(Any two) 2x1	2.	

PART B.

1.	1. Balancing of $O_2$ and $CO_2$ level will be lost 2. Regulation of earth's temp will be lost. 3. Causes soil erosion 4. Fertility of soil reduces 5. Shelter for wild animals will be lost 6. Cyclones and floods will increase. 7. Reduces rain. 8. Pollution will increase.	(Any five)	<del>5x1</del> 6x1	<del>5</del> 6
2.	1. Wind erosion 2. Dry land salinity 3. Soil surface scalding 4. Soil acidity 5. Soil nutrient loss 6. Tree regeneration. 7. Water logging etc		5x1	6

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3.	<p>1. Abiotic Component: -          Non living Component          eg: soil, temp, light,          water and chemical          factors consisting the          organic and          inorganic substances          The inorganic substances          are C, H, N, K, P, S          The organic substances          include carbohydrates,          lipids, proteins and          humans.</p> <p>2. Biotic Component: -          It is the living          Component of eco          system. It include          autotrophic Component          and heterotrophic          Component.</p>	<p><del>2 x 2 1/2</del></p> <p>2 x 3</p>	<p>6</p>	

4.

1. Destruction of forests
2. Urbanisation.
3. Burning fuel.
4. Industrialization.
5. Desertification.
6. Greed rather than need.
7. Exploitation of timber resources.
8. Tourism business.
9. Exploitation of non timber forest product.
10. Illegal constructions.

Any five

5x1

5.

5

1. Quality of water
2. Reproduction and migration
3. Changes rivers species composition.
4. River fish cannot withstand high temp.
5. It disturb river ecosystem.
6. It causes physical stress in fish.

Any five

5x1

5

6.

1. Municipal wastes
2. Industrial wastes
3. Hazardous wastes.

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Revision :		Course Code :		
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Qst.No	Scoring Indicator	Split up score	Sub Total	Total
7.	<p>Risk management involves optimal allocation of available resources to obtain goal. It has been Component.</p> <ol style="list-style-type: none"> <li>1. Risk identification</li> <li>2. Risk reduction</li> <li>3. Risk transfer.</li> </ol> <p style="text-align: center;"><u>PART C</u></p>	3x2 = 6	6	
III-a	<p>The construction of large dams change the relationship of water and land destroying ecosystem. ecological problems are</p>			

1. Soil Erosion
2. Species Extinction
3. Spread of Disease
4. Spread of Disease
5. Changes to Earth's Rotation
6. Sedimentation.
7. Siltation
- 6, 8. Salination.

Expl of  
Any 4x  
2 8

1. Land slides.
2. Lack of rain.
3. Hurds animals and birds.
4. Pollution
5. Global warming.
6. Affect tribal people.
- 7 Loss of medicine plants.

3 Expl. 7 7  
4

OR.

IV

a, Sustainable development is the process of development which do not cause damage to the environment or do not disturb life of earth.

Def. 2marks.  
Importance 2+3+3  
3marks  
explain  
3mark

8

Imp:

- ① In sustainable development the natural resources are so cautiously used.
- ② They are made available for future use

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Qst.No	Scoring Indicator	Split up score	Sub Total	Total
	③ Makes arrangement for reducing Pollution.			
b,				
1.	Wind erosion			
2.	Water erosion			
3.	Dry land salinity	Any	7.	
4.	Soil surface scalding	7x1		
5.	Soil acidity			
6.	Soil nutrient loss			
7.	Tree regeneration.			
8.	Water erosion			
9.	Irrigation induced Salinity.			
10	Water logging			
11	Vegetation.			

V

a,

1. It is the graphical representation of the number of individuals at successive trophic levels of a food chain per unit area.

$2 \times 2 = 4$

8

8

exply

2. If the number of different types of Producers, Consumers and decomposers are plotted on a chart, the shape is like a pyramid. Hence the name ecological pyramid.

b,

Producers: Green plants

Produce food and they are producers.

$3 +$   
exply

7

7

Consumers: These include animals such as insects, fish etc.

Decomposers: These are distributed throughout the pond mainly along the bottom where the dead bodies of plants and animals accumulate.

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VI a,	Types 1. Terrestrial ecosystem.			
1.	Trophic levels exist within aquatic environment are • First trophic level • Second trophic level • Third trophic level.	4x2	8	8.
2.	It contains Abiotic and biotic components.			
3.	For aquatic ecosystem, There are two different kinds of producer organism.			
4.	Primary Consumers consists of zooplankton and benthos.			

b). This is a type of terrestrial eco systems.  
There are

1. Natural eco system
2. Semi natural eco system
3. Cultivated eco system.

3 + 7 7  
4

Natural grass lands develop in regions characterised by an annual rainfall between 25cm to 75cm, while temperature are moderate.

Tropical grass lands in regions with marked wet and dry seasons. Cultivated grass lands such as hay fields and pastures are artificially planned and maintained.

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VII	<p>1. Normal properties of water are changed</p> <p>2. Bad taste of drinking water.</p> <p>2. unchecked growth of aquatic weeds in water bodies.</p> <p>3. Decrease of aquatic life.</p> <p>4. Offensive odours from river.</p> <p>5. Water pollution make the water unfit to drink.</p>	<p>Any 4x2</p>	8	8.

b,

1. Crude oil and refined fuel spills from tanker ship.
2. Organic matter from dead living organisms is vital in the formation of oil.
3. Oil Transportation.
4. Oil Drilling.
5. Drainage System.
6. War.
7. Sporting activities at sea.
8. Sea plants.
9. Sea animals.

Any 3+  
expl  
4

7

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VIII a,	1. Municipal waste	3+	8	8
	2. Industrial waste	expl 5		
	3. Hazardous waste			
b,	Two stages of EIA			
	1. Preliminary Assessment	2		
	2. Detailed Assessment			
	The key elements are.		2+5	7
	1. Scoping			
	2. Screening.			
	3. Identifying and evaluating alternatives.	5		

4. Mitigating measures

5. Issuing environmental  
Statements

IX a, 1. Flood

2. cyclone

3. Drought

4. Earth quake

5. Setting of fires

6. Epidemic

7. Deforestation.

8. Pollution due to agriculture

9. Chemical pollution.

10 Wars.

Any 4+  
explain

4+4

8

b, 1. Pre-Disaster stage

2. Emergency stage

3. Post Disaster stage

3+  
exply

7

7

X a, Efficient risk reduction involves

Mitigation : Measures

taken prior to the  
impact of a hazard

everal to minimize  
its effect.

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Qst.No	Scoring Indicator	Split up score	Sub Total	Total
	<p>Non structural mitigation.</p> <ol style="list-style-type: none"> <li>1. Legal framework</li> <li>2. Land use planning</li> <li>3. Incentives.</li> <li>4. Training and Education.</li> <li>5. public awareness</li> <li>6. Institution building</li> </ol>	2+6.	8	
b,1.	<p>Pollution Control Board and Pollution Control Acts in India.</p> <ol style="list-style-type: none"> <li>2. Environmental act.</li> <li>3. Central pollution Control board.</li> </ol>	3+exply 4	7	7

**CODE: 3001(15)**

**COURSE: ENVIRONMENTAL SCIENCE AND DISASTER MANAGEMENT**

**VERSION: A**

**BLUEPRINT**

Sl. No.	Module	Type of Questions							
		Part A		Part B		Part C		Total	
		No. of Questions	Score	No. of Questions	Score	No. of Questions	Score	No. of Questions	Score
1	I	2	4	2	12	4	30	8	46
2	II	1	2	2	12	4	30	7	44
3	III	1	2	2	12	4	30	7	44
4	IV	1	2	1	6	4	30	6	38
		5	10	7	42	16	120	28	172

### QUESTION WISE ANALYSIS

Course: ENVIRONMENTAL SCIENCE AND DISASTER MANAGEMENT (15) 3001

Version: A

Qn. No.	Specific outcome (as per syllabus)	Module	Content details	Score	Time in Minutes
I 1	1.1.0	I	Examples of natural resources	2	2
2	1.1.13	I	Environmental impacts due to mining	2	2
3	2.1.4	II	Functions of decomposers	2	2
4	3.1.2	III	Environmental pollution	2	2
5	4.1.1	IV	Manmade disaster	2	2
II 1	1.1.4	I	Problems of de-forestation	6	10
2	1.1.27	I	Causes for land degradation	6	10
3	2.1.2	II	Biotic and abiotic component of an echo system	6	10
4	2.1.16	II	Causes of global warming.	6	10
5	3.1.24	III	Effects of thermal pollution	6	10
6	3.1.31	III	Categories of solid wastes	6	10
7	4.1.4	IV	Risk management	6	10
III(a)	1.1.5	I	Social and ecological problems due to dams	8	30
(b)	1.1.3	I	Problems due to over exploitation of forests	7	
IV(a)	1.1.24	I	Sustainable development and write its importance	8	
(b)	1.1.27	I	Causes for land degradation	7	
V (a)	2.1.9	II	Ecological pyramid	8	30
(b)	2.1.4	II	Role of producers, consumers and decomposers in an ecosystem	7	
VI(a)	2.1.13	II	Feature of aquatic echo system	8	
(b)	2.1.12	II	Type and structure of grass land echo system	7	
VII(a)	3.1.9	III	Effects of water pollution	8	30
(b)	3.1.12	III	Sources of contributing oil pollution	7	
VIII(a)	3.1.31	III	Categories of solid wasters	8	
(b)	3.1.35	III	EIA process	7	
IX (a)	4.1.0	IV	Causes of different types of disasters	8	30
(b)	4.1.19	IV	Disaster management operation cycle	7	
X (a)	4.1.19	IV	Various preventive measures for disaster risk reduction	8	
(b)	4.1.24	IV	Role played by various acts related to disaster management	7	
Total time				3 hours	

