

III- SEM-COMMON/2019(W)(NEW)
TH-5 ENVIRONMENTAL STUDIES

Full Marks: 80

Time : 3 Hours

Answer any FIVE Questions including Q No. 1 & 2

Figures in the right hand margin indicates marks

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Q1.	<p>Answer ALL the questions.</p> <p>(a) Define renewable energy resource with any two suitable examples.</p> <p>(b) Define environment.</p> <p>(c) What do you mean by decomposers?</p> <p>(d) What do you understand by the term 'Poaching of wild life'?</p> <p>(e) Write any two consequences of noise pollution.</p> <p>(f) What is the major drawback of nuclear power generation?</p> <p>(g) What are the major reasons for population explosion?</p> <p>(h) Define energy flow in ecosystems.</p> <p>(i) What is energy cropping?</p> <p>(j) What do you mean by endangered species?</p>	2x10
Q2.	<p>Answer any SIX questions.</p> <p>(i) Give a brief account of 'justification for awareness about environmental value education'.</p> <p>(ii) Discuss about rain water harvesting.</p> <p>(iii) Distinguish between 'Ex-situ' and 'In-situ' conservation.</p> <p>(iv) Explain biomagnifications with a case study.</p> <p>(v) Discuss the effects of use of excessive fertilizers and pesticides in crop fields.</p> <p>(vi) Explain conflicts over water with a case study.</p> <p>(vii) What precautionary measures should be taken during earthquake?</p>	5x6
Q3.	<p>Explain how habitat loss is a major threat to biodiversity.</p>	10
Q4.	<p>Explain the sources of solid wastes and solid waste management.</p>	10
Q5.	<p>Discuss the role of an individual in conservation of natural resources.</p>	10
Q6.	<p>Describe the causes and rehabilitation of the displaced people.</p>	10
Q7.	<p>Write short notes on</p> <p>(a) 'mortality'</p> <p>(b) 'natality'.</p>	10

ENVIRONMENTAL STUDIES

(Code : BST-501)

Full Marks : 70

Time : 3 hours

Answer any five questions

Figures in the right-hand margin indicate marks

1. (a) What are biomes ? 2
- (b) Write the sources and effects of marine pollution. 5
- (c) Is gross national product in conflict with gross environmental improvement index ? Explain. 7
2. (a) Define the topics environmental science and environmental studies. 2
- (b) Show that, India is a mega-biodiversity nation. 5

(Turn Over)

- (c) Explain, the role of an individual in prevention of pollution. 7
3. (a) What is watershed management ? 2
- (b) Explain, the Lindeman's energy flow in ecosystem. 5
- (c) Briefly explain about productive and aesthetic values of bio-diversity. 7
4. (a) What is sustainable development ? 2
- (b). What is the importance of environmental studies ? 5
- (c) What is ecological succession ? Explain, a complete terrestrial ecological succession. 7
5. (a) What are inexhaustible natural resources ? Give two examples. 2
- (b) Briefly explain about a detritus food web. 5
- (c) What is marine pollution ? What are the sources and effects of marine pollution ? 7

6. (a) Write four physiological effects of loud noise. 2
- (b) Briefly explain about in-situ conservation of biodiversity. 5
- (c) What is the status of development of nuclear power in India ? 7
7. (a) What are autotrophs and heterotrophs ? Give examples of each. 2
- (b) Show that, environmental science is multi-disciplinary. 5
- (c) Give a brief account of various alternate energy resources. 7
8. (a) Define ecology and ecosystem. 2
- (b) What are various threats to biodiversity ? 5
- (c) Write the functions of Central Board and State Boards as per The Water (Prevention and Control of Pollution) Act, 1974. 7

ENVIRONMENTAL STUDIES

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1. (a) Define autoecology. 2
- (b) Discuss the role of information technology in environment and human health. 5
- (c) Write the hazards associated with radioactive pollution. 7
2. (a) What are detritivores ? Give examples. 1 + 1
- (b) Explain, the methods employed for control of noise pollution. 5
- (c) Write notes on endangered and endemic species. 7

(Turn Over)

3. (a) What are hotspots of biodiversity ? 2
- (b) Show that, equitable use of natural resources is the need for sustainable life style. 5
- (c) What is watershed management ? Write its objectives and major steps taken to carry out ?
1 + 3 + 3
4. (a) What do you mean by waste land reclamation ? 2
- (b) What are the effects of modern agriculture on world food resources ? 5
- (c) Explain the energy flow in ecosystem and show that it is unidirection. 7
5. (a) What are hazardous wastes ? 2
- (b) What are mineral resources ? Write the various adverse effects of mining. 5
- (c) Give a comparison between ex-situ and in-situ conservation of bio-diversity. 7
6. (a) What is gene pool ? 2
- (b) What are the effects of thermal pollution ? 5

- (c) Explain the structure and characteristics of grass-land ecosystem ? 7
7. (a) What is photochemical smog ? 2
- (b) What are significant contributions and effects of dams ? 5
- (c) Write the features of The Air (Prevention and Control of pollution) Act, 1981. 7
8. (a) What is grazing food chain ? 2
- (b) What are the methods employed for control of water pollution ? 5
- (c) Briefly, explain about the causes and consequences of drought. 7
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Total Pages - 3

VI - Sem / COMMON / 2018 (S)
(New)

ENVIRONMENTAL STUDIES

(Code - BST-501)

Full Marks : 70

Time : 3 hours

Answer any five questions

Figures in the right-hand margin indicate marks

1. (a) What is Synecology? 2
- (b) Explain, about ex-situ conservation of bio-diversity? 5
- (c) Briefly explain about alternate energy resource OTEC system? 7
2. (a) What is Jhum Cultivation? 2
- (b) Explain, the structure and characteristics of pond ecosystem? 5
- (c) What are the responsibilities and powers of Central Government as per Environmental (Protection) Act, 1986? 7

(Turn Over)

3. (a) What do you mean by rubbish and refuge ? 2
- (b) What is sustainable development ? Write the aspects and measures for sustainable development ? 5
- (c) What are the impacts of industrialisation on human environment ? 7
4. (a) Write four psychological effect of noise pollution ? 2
- (b) Briefly explain about "PRESERE" and "SUBSERE" ? 5
- (c) Write the role of an individual in conservation of natural resources ? 7
5. (a) What is value education ? 2
- (b) What are the hindrances in the development of nuclear power ? 5
- (c) What are ecological pyramids ? Explain the pyramid of number and pyramid of energy ? 7

(3)

6. (a) Define food chain and food web ? 2
- (b) Write the causes and consequences of deforestation ? 5
- (c) Explain, the functions of "cyclone separators" and "Electrostatic Precipitators" with diagram ? 7
7. (a) What are saprophytes ? Give two examples ? 1 + 1
- (b) What is population explosion ? Briefly discuss it in Indian scenario ? 1 + 4
- (c) Write the basic principles of methods of soil conservation ? 3 + 4
8. (a) Define BOD and COD ? 1 + 1
- (b) Give a case study of conflicts for water ? 5
- (c) Explain the various steps employed for solid waste management ? 7
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ENVIRONMENTAL STUDIES

(Code : BST-501)

Full Marks : 70

Time : 3 hours

Answer any five questions

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1. (a) Define biodiversity. 2
- (b) What are ecological benefits of forest ? 5
- (c) Write the various methods of disposal of solid wastes. 7
2. (a) What is a food chain ? Give example. 2
- (b) Write the role of an individual in protection of environment. 5
- (c) Explain, the various equipments used to control suspended particulates in industries. 7

(Turn Over)

3. (a) What do you mean by wasteland reclamation? 2
- (b) Write the effects of inorganic and organic water pollutants on animals. 5
- (c) Discuss the Environmental Protection Act, 1986. 7
4. (a) What are greenhouse gases? 2
- ✓ (b) Explain, the energy flow in ecosystem and show that it is unidirectional. 5
- (c) Write the merits and demerits of dams. 7
5. (a) Define BOD and COD. 2
- (b) Give a comparison between in-situ and ex-situ conservation of biodiversity. 5
- (c) Discuss about rain water harvesting. Write its advantages. 7
6. (a) What are biodegradable pollutants? Give example. 2

- (b) Write the various sources of hazardous wastes. 5
- (c) What are the various causes and issues related to the threats of biodiversity? 7
7. (a) What are autotrophs and heterotrophs? 2
- (b) Write short note on watershed management. 5
- (c) What are various techniques used to control noise pollution? 7
8. (a) What are endangered species? Give example. 2
- ~~(b)~~ What are ecological pyramids? Explain the pyramid of Numbers. 5
- ~~(c)~~ Explain, the structure and characteristic features of pond ecosystem. 7
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VI/SEM/MECH/2016(W)
OLD

ENVIRONMENTAL POLLUTION AND CONTROL

[Theory-3]

Full Marks : 80

Time : 3 hours

Answer any five questions.

The figures in the right-hand margin indicate marks

1. (a) What is Green-Technology? 2
- (b) Write the importance of environmental studies and the need for public awareness. 6
- (c) Explain the concept of Eco-system. 8
2. (a) What is water pollution? 2
- (b) What are the sources of water pollution? 6
- (c) What are the ways we can take to decrease water pollution problems? 8
3. (a) What is Geothermal energy? 2
- (b) Explain importance of solar energy. 6

(Turn Over)

- (c) Explain the growth and use of polymers in modern world and its environmental impacts. 8
4. (a) Define 'Noise Pollution'. 2
- (b) Explain Noise Rating system. 6
- (c) Explain various sources of noise and how to control that. 8
5. (a) What is Air Pollution? 2
- (b) What are the major air pollution coming out from industry? 6
- (c) Explain different methods of controlling Air Pollution. 8
6. (a) What is Food Chain? 2
- (b) Explain about nuclear Fission and Fusion. 6
- (c) Explain the use of geothermal energy for electricity generation. 8
7. (a) What are the various gaseous pollutants? 2
- (b) Explain global warming. 6
- (c) What are the advantages of hydro electric power plant over thermal power plants? 8

5-11
V/SEM/COMMON/2016(S)
NEW

ENVIRONMENTAL STUDIES

Sub Code -BST-501

Full Marks : 70


Time : 3 hours

Answer any five questions.

The figures in the right-hand margin indicate marks

1. (a) What are endemic species? Give examples. 2
- (b) Write the various sources of hazardous wastes. 5
- (c) Discuss the Environmental Protection Act, 1986 in briefly. 7
2. (a) What are ecological pyramids? 2
- (b) Show that India is a mega-biodiversity nation. 5
- (c) Explain, briefly about wasteland reclamation. 7
3. (a) Define BOD and COD of water. 2
- (b) Write the various methods adopted to control noise. 5

(Turn Over)

-  (c) Explain the structure and characteristic feature of grassland ecosystem. 7
4. (a) What are secondary pollutants ? Give examples. 2
- (b) Explain, about the productive and aesthetic values of biodiversity. 5
- (c) What is thermal pollution ? Write the various methods adopted to control it. 7
5. (a) Define ex-situ conservation. 2
- (b) Write the role of information technology in environment and human health. 5
- (c) Write functions of Cottrel's electrostatic precipitator and cyclone separation in prevention of air pollution. 7
6. (a) What is poaching of wildlife ? 2
- (b) Write the need of equitable use of resources for sustainable life style. 5
- (c) Discuss the salient features of Wildlife Protection Act, 1972. 7

(3)

7. (a) What are producers and decomposers ? 2
- (b) Write the significant contributions of dams to human needs. 5
- (c) Briefly, explain about the various renewable energy resources and their fields of applications. 7
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ENVIRONMENTAL STUDIES

(Code : BST-501)

Full Marks : 70

Time : 3 hours

Answer any five questions


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1. (a) What is environmental pollution ? 2
- (b) State the drawback of Nuclear power and their adverse effect. 5
- (c) Explain Global warming and write down its effects. 7
2. (a) What is aquatic ecosystem ? 2
- (b) Explain biotic and abiotic ecosystem. 5
- (c) Write the function of food chain and food web in ecosystem. 7
3. (a) What are sources of energy ? 2

(Turn Over)

- (b) What is population explosion ? 5
- (c) Write short notes on : 7
- (i) Acid rain
 - (ii) Ozone layer depletion
 - (iii) Greenhouse effect.
4. (a) What is green technology ? 2
- (b) What are various types of pollutants ? 5
- (c) Explain different components of ecosystem. 7
5. (a) What is sound power level ? 2
- (b) Explain the term 5
- (i) Combustion
 - (ii) Pyrolysis
 - (iii) Gasification.
- (c) What are the causes and effects, control measures of Industrial Estate ? 7
6. (a) What is food web ? Give one example. 2
- (b) How environment and human health are interrelated ? Explain with exms. 5

(3)

- (c) What is the role of information technology in environment and human health? 7
7. (a) What is secondary pollutants? 2
-  (b) What is ecological succession? 5
- (c) What is disaster management? How disaster management helps in case of flood? 7
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ENVIRONMENTAL POLLUTION AND CONTROL

(Theory — 3)

Full Marks : 80

Time : 3 hours

Answer any five questions

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1. (a) What is Green Technology? 2

(b) Describe about terrestrial ecosystems with examples. 6

(c) Write in details about biotic and abiotic component of an ecosystem. 8

2. (a) What is sustainable development? 2

(b) List the human activities causing environmental imbalances and pollution of the environment. 6

(Turn Over)

(c) Describe about status of sustainable development in India. 8

3. (a) Define solar energy. 2

(b) Write about the development of Geo-thermal energy. 6

(c) Write about the development of wind energy and tidal energy. 8

4. (a) What is hydroelectric energy ? 2

(b) List the advantages of hydro-power. 6

(c) Write in details about the status of hydro-power development in India. 8

5. (a) Define thermal power. 2

(b) What are the environmental impacts of thermal power plants ? 6

(c) What is nuclear fission ? How nuclear power is generated ? 8

(3)

6. (a) Define environmental pollution. 2

(b) Differentiate between Acid rain and ozone depletion. 6

(c) What are the causes of air pollution? Describe it. 8

7. Write short notes on any four : 4 × 4

(i) Thermoplastic resins

(ii) Biodegradable polymers

(iii) Noise pollution

(iv) Water pollution

(v) Hydrogen as an Energy Source.