

Name:	 <b>UPES</b> UNIVERSITY WITH A PURPOSE
Enrolment No:	

**UNIVERSITY OF PETROLEUM AND ENERGY STUDIES**  
**End term Examination, June 2021**

**Course: B. Sc. Geology**  
**Program: Environmental science**  
**Course Code: HSFS 1003**

**Semester: II**  
**Time 03 hrs.**  
**Max. Marks: 100**

**Instructions:**

**SECTION A**

Q. No.	CO	Multiple Choice Questions (Attempt all questions)	Marks
			<b>5 × 6=30</b>
1.	CO1	Match the following a) 22 April                      i) World environment Day b) 28 February                ii) World ozone day c) 05 June                        iii) World earth Day d) 16 September              iv) world water day e) 22 March                      v) National Science Day	<b>5</b>
2.	CO1	Match the following a) Medha Patkar                i) Chipko movement b) MS Swaminathan        ii) Bird conservation c) Salim Ali                      iii) Environmental conservation d) Sunderlal Bahuguna iv) Narmada river e) MC Mehta                    v) Green revolution	<b>5</b>
3.	CO2	Write three examples of endangered animal and bird	<b>5</b>
4.	CO2	Write the name of producer, primary, secondary and tertiary consumers for the following ecosystem a) Grazing or grassland ecosystem b) Desert ecosystem	<b>5</b>
5.	CO3	Match the following events with appropriate polluting agents a) Bhopal gas tragedy        i) SO <sub>2</sub> and NO <sub>x</sub> b) Chernobyl disaster        ii) Methyl isocyanides c) Minamata disease        iii) Uranium d) Hole in Ozone layer      iv) Mercury e) Acid rain                      v) CFC	<b>5</b>
6.	CO3	Write three mitigation strategies for Thermal and noise pollution	<b>5</b>
<b>SECTION B : Short Answers (Attempt all questions)</b>			
			<b>10 × 5=50</b>

7	CO1	<p>a) Define environmental studies. <b>2</b>  b) Describe in detail the scope and multidisciplinary nature of environmental studies. <b>8</b></p> <p style="text-align: center;"><b>OR</b></p> <p>a) What do you mean by ecosystem? <b>2</b>  b) Describe the components and structure of an ecosystem. <b>8</b></p>	<b>10</b>
8	CO 2	<p>a) Define natural resources. <b>2</b>  b) Describe major classification of natural resources <b>8</b></p> <p style="text-align: center;"><b>OR</b></p> <p>Explain five renewable resources with advantages and disadvantages <b>10</b></p>	<b>10</b>
9	CO 2	<p>a) Define biodiversity <b>2</b>  b) Describe <i>in-situ</i> and <i>ex-situ</i> conservation of biodiversity <b>4+4</b></p> <p style="text-align: center;"><b>OR</b></p> <p>a) What is the significance of pyramid in ecosystem analysis? <b>3</b>  b) Explain the flow of energy through various components of ecosystem with an example. <b>7</b></p>	<b>10</b>
10	CO3	<p>a) What are the main sources of Water pollution? <b>3</b>  b) Describe their effects and suggests two methods of controlling water pollution. <b>5</b>  c) Describe the impact of noise pollution <b>2</b></p> <p style="text-align: center;"><b>OR</b></p> <p>Write short note on:  a) Forest conservation act <b>5</b>  b) Acid rain <b>5</b></p>	<b>10</b>
11	CO4	<p>a) Write short note on greenhouse gases and its impact in global warming <b>5</b>  b) Wildlife protection Act <b>5</b></p>	<b>10</b>
<b>SECTION C : Case study (Attempt all questions)</b>			
			<b>1 × 20=20</b>
12	CO4	<p><b>Case study:</b> The post-monsoon practice of stubble burning in northwest India pushes Delhi's already strained air quality into emergency levels in October and November. Every year, the Ministry of Earth Sciences' air quality monitor SAFAR publishes daily figures on the contribution of stubble burning in northwest India to Delhi's PM 2.5 levels. On a single day in November, 2020 the contribution peaked to 42% and remained above 15% on 12 days, which could be due to the result of a higher number of stubble burning cases in Punjab. However, the stubble burning could not be the only reasons for Delhi's such poor air quality. Other factors like vehicle exhaust, heavy industry such as power generation, small-scale industries like brick kilns, suspended dust on the roads due to vehicle movement and construction activities, open waste burning, combustion of fuels for cooking, lighting, and heating, and in-situ power generation via diesel generator sets also contribute majorly for air pollution throughout the year.</p> <p>a) Discuss the possible strategies to curb such air pollution <b>5</b></p>	<b>20</b>

		b) Describe air (prevention and control of pollution) act, 1981 <b>4</b> c) Discuss your role to control air pollution <b>4</b> d) Write the effects of greenhouse gasses on the ozone layer <b>4</b> e) What is the impact of air pollution? <b>3</b>	
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