

BALLARI INSTITUTE OF TECHNOLOGY & MANAGEMENT

(Autonomous Institute under Visvesvaraya Technological University, Belagavi)

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Course Code

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Fifth Semester B.E. Degree Examinations, September / October 2024

ENERGY AND ENVIRONMENT

Duration: 3 hrs

Max. Marks: 100

*Note: 1. Answer any FIVE full questions choosing ONE full Question from each Module.**2. Missing data, if any, may be suitably assumed*

<u>Q. No</u>	<u>Questions</u>	<u>Marks</u>	<u>(RBTL:CO:PI)</u>
<u>Module-1</u>			
1.	a. Explain the various key energy trends in India.	10	(2 :1 : 1.6.1)
	b. Using relevant statistics, explain world energy production and consumption.	10	(2 :1 : 1.7.1)
(OR)			
2.	a. Explain factors affecting India's energy development.	10	(1 :1 : 1.6.1)
	b. Briefly explain primary energy and secondary energy sources.	06	(2 :1 : 1.7.1)
	c. State differences of energy and power.	04	(2 :1 : 1.7.1)
<u>Module-2</u>			
3.	a. With neat sketch, explain pumped storage method.	06	(2 :2 : 1.6.1)
	b. Define energy management. List out the principles of energy management.	06	(2 :2 : 1.6.1)
	c. With neat sketch, explain working of solar pond.	08	(3 :2 : 1.6.1)
(OR)			
4.	a. Explain the needs of an energy audit.	04	(2 :2 : 1.6.1)
	b. Differentiate between preliminary and detailed energy audit.	06	(2 :2 : 1.6.1)
	c. Explain ten steps of methodology for detailed energy audit.	10	(2 :2 : 1.6.1)
<u>Module-3</u>			
5.	a. Explain the need for public awareness towards environment.	06	(2 :3 : 1.6.1)
	b. Explain multidisciplinary nature of environmental studies.	08	(2 :3 : 1.6.1)
	c. Differentiate between environment and ecosystem.	06	(2 :3 : 1.6.1)
(OR)			
6.	a. With neat sketch, explain (i) food chain (ii) food Web (iii) ecological pyramid.	08	(2 :3 : 1.6.1)
	b. Explain grassland ecosystem. What are its type? How conservation of grassland can be made.	08	(2 :3 : 1.6.1)
	c. Write a short note on ecological succession.	04	(1 :3 : 1.6.1)

Module-4

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| 7. | a. | Differentiate between primary pollutant and secondary pollutant. | 04 | (2 :4 : 1.6.1) |
| | b. | Explain causes, and control measures of air pollution. | 08 | (2 :4 : 1.6.1) |
| | c. | Discuss the causes, effects and control measures of soil pollution. | 08 | (2 :4 : 1.6.1) |

(OR)

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| 8. | a. | Define Solid Waste Management (SWM). Explain 3R`s of SWM. | 08 | (3 :4 : 1.6.1) |
| | b. | List out the roles of an individual in prevention of pollution. | 04 | (1 :4 : 1.6.1) |
| | c. | Discuss briefly the case study of Bhopal Gas Tragedy. | 08 | (2 :4 : 1.6.1) |

Module-5

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| 9. | a. | Explain the need for waste land reclamation. | 06 | (2 :5 : 1.6.1) |
| | b. | Enumerate the impact of global warming on the nature. | 08 | (2 :5 : 1.6.1) |
| | c. | Write a short note on ozone layer depletion. | 06 | (1 :5 : 1.6.1) |

(OR)

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| 10 | a. | Explain nuclear accidents and holocaust. | 06 | (2 :5 : 1.6.1) |
| | b. | List out the salient features and penalties under Water Act. | 06 | (1 :5 : 1.6.1) |
| | c. | Explain about Environmental Impact Assessment (EIA). | 08 | (2 :5 : 1.6.1) |

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