

**APJ ABDULKALAM TECHNOLOGICAL UNIVERSITY
08 PALAKKAD CLUSTER**

Q. P. Code :ES0819032-I

(Pages:2)

Name.....

Reg. No.....

SECOND SEMESTER M.TECH. DEGREE EXAMINATION JUNE2019

Branch: Electrical & Electronics Engineering

Specialization: Energy Systems

08EE6032 ENERGY AND ENVIRONMENT

Time:3 hours

Max.marks: 60

Answer all six questions.

Modules 1 to 6: Part 'a' of each question is compulsory and answer either part 'b' or part 'c' of each question.

Q.no.	Module 1	Marks
1.a	Give an account on any 3 environmental disasters.	3

Answer b or c

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|----------|-----------------------------------------------------------------|----------|
| b | Bring out the relation between energy, environment and ecology. | 6 |
| c | Elucidate about the types of energy and its utilization. | 6 |

Q.no.	Module 2	Marks
2.a	Give a brief account on biogeochemical cycles and its significance.	3

Answer b or c

- | | | |
|----------|-------------------------------------------------------------------------------------------------------------------|----------|
| b | Comment on biodiversity. What are the measures to conserve biodiversity? Explain. | 6 |
| c | Write short notes on <ul style="list-style-type: none">• Nitrogen cycle• Phosphorous cycle | 6 |

Q.no.	Module 3	Marks
3.a	Write short note on environmental lapse rate.	3

Answer b or c

- b** Explain the various meteorological factors that affect the dispersal of air pollutants. **6**
- c** Elucidate on air pollution sampling and measurement. **6**

Q.no.	Module 4	Marks
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| 4.a | Write short note on sources of water pollution. | 3 |
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Answer b or c

- b** Elucidate about particulate emission control. **6**
- c** Explain how will you measure the ambient concentration of suspended particulate matter in air. **6**

Q.no.	Module 5	Marks
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| 5.a | Write short notes on biological magnification | 4 |
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Answer b or c

- b** Elucidate about primary water treatment method. **8**
- c** Why feed water needs special treatment? What are the treatment techniques? Explain any one. **8**

Q.no.	Module 6	Marks
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|------------|----------------------------------------------------------------------------|----------|
| 6.a | Briefly explain about environmental pollution prevention and control acts. | 4 |
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Answer b or c

- b** What are the environmental impacts of a thermal power station? Explain. **8**
- c** What are the environmental impacts of a large hydro electric station? Explain. **8**