

Name :
Reg No :

{E}

APJ ABDUL KALAM TECHNOLOGICAL UNIVERSITY
07 THRISSUR CLUSTER

FIRST SEMESTER M.TECH. DEGREE EXAMINATION DEC 2017

Civil Engineering Department
Environmental Engineering

07CE6113 INDUSTRIAL WATER POLLUTION CONTROL

Time : 3 hours

Max.Marks: 60

Answer all six questions. Part 'a' of each question is compulsory.

Answer either part 'b' or part 'c' of each question

Q.no.	Module 1	Marks
1a	What are damages caused by industrial pollution on environment?	4
	Answer b or c	
b	How does the discharge of suspended solids and dissolved organic pollutants affect the design of sewage treatment plant?	5
c	Write the effects of industrial pollution on Ganges river in India. What are the precautions to be taken to protect the river?	5
Q.no.	Module 2	Marks
2a	What are the advantages of equalization? How equalization of wastewater can be achieved in an industry?	4
	Answer b or c	
b	By product recovery is the utopian aspect of industrial waste treatment. Explain.	5
c	What are the steps to be followed in environment impact assessment?	5
Q.no.	Module 3	Marks
3a	What are the advantages of treating partially treated industrial waste with domestic sewage?	4
	Answer b or c	
b	Distinguish between effluent standards and stream standards.	5
c	What are the physical factors to be considered in the selection of optimum treatment method?	5

Q.no.	Module 4	Marks
4a	What are the various treatment methods used for treating fishing industry waste?	4

Answer b or c

- | | | |
|----------|---|----------|
| b | Explain the process in a sugar industry with flow chart | 5 |
| c | Give the characteristics of waste water from a distillery and suggest a treatment method. | 5 |

Q.no.	Module 5	Marks
5a	Explain the different methods of pulping in paper industry?	5

Answer b or c

- | | | |
|----------|---|----------|
| b | With a flow chart , explain the processes in a cotton textile industry | 7 |
| c | What are the different methods of tanning operation? Enumerate the treatment methods for Tanning industry effluent. | 7 |

Q.no.	Module 6	Marks
6a	What are the pollutants found in oil refinery waste water? What are the different treatment units provided for their removal?	5

Answer b or c

- | | | |
|----------|---|----------|
| b | What are the sources of radioactive waste? Explain how liquid radioactive wastes are disposed safely? | 7 |
| c | Discuss the characteristics of steam power plant wastewater. What is its impact on environment? | 7 |