

B. Tech. (Chemical) SEM – VII (CBCS – 2014 COURSE): SUMMER 2019
SUBJECT: ELECTIVE – III ADVANCED OXIDATION PROCESSES

Day: Thursday
Date: 09/05/2019

Time: 02.30 PM TO 05.30 PM
Max Marks. 60

S-2019-2785

N.B.

- 1) All questions are **COMPULSORY**.
- 2) Figures to the right indicate **FULL** marks.
- 3) Draw neat and labeled diagram **WHEREVER** necessary.
- 4) Assume suitable data if necessary.

Q.1 What are the conventional wastewater treatment processes? Explain in brief. (10)

OR

Give merits and demerits of various AOP's. (10)

Q.2 Explain oxidation using UV irradiation and hydrogen peroxide. Give its advantages. (10)

OR

What are the various UV sources? Describe their characteristics. (10)

Q.3 What is heterogeneous photocatalysis? Explain in brief with its applications. (10)

OR

Explain the design of slurry reactor with neat diagram. (10)

Q.4 Describe photo fenton process in detail. (10)

OR

Give merits and demerits of advanced fenton processes. (10)

Q.5 Give a brief on ultrasound processes used in water treatment. (10)

OR

Give the principles of acoustic cavitation and sonochemistry. (10)

Q.6 Give applications of AOP in pharmaceutical industries. (10)

OR

Give cost comparison of AOP's in wastewater treatment (10)

* * *
