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SARDAR PATEL UNIVERSITY  
M.Sc. (EST) (Third Semester) Examination  
Saturday, 29<sup>th</sup> October, 2016

2.00 p.m. to 5:00 p.m.

PS03EEST01: Industrial Pollution and Control Technology

Max. Marks: 70  
[08]

Q.1. Multiple Choice Questions (Choose Correct Answer)

- 1) The waste water is coming from the flush toilets. The Wastewater is called .....  
a) Gray water b) Yellow water c) Black water d) Brown water
- 2) Granular medium filters can either operate by gravity flow or by .....  
a) Temperature b) Pressure c) water d) All of the above
- 3) ..... is not source related to thermal pollution.  
a) Medical waste b) Nuclear power plant c) Industrial effluent d) coal fired plants
- 4) Sliver is formed in cotton manufacturing industry. The process is called as .....  
a) Picking b) Drawing c) Spinning d) Carding
- 5) Whey is the byproduct of .....  
a) Butter b) Cheese c) Ice-cream d) Curd
- 6) Stochastic effect of radiation pollution is .....  
a) Medium b) acute c) Chronic d) all of the above.
- 7) The middle ear is the part of the ear between ..... and the oval window.  
a) Cochlea b) pinna c) eardrum d) ear canal
- 8) In the kraft process, ..... types of the chemical is used.  
a) Calcium sulphite b) Calcium bisulphite c) calcium sulphate d) Non of the above

[14]

Q.2. Write a Short Note on followings (Any Seven).

1. Scouring and Carbonizing of woolen textile mill
2. Reverse Osmosis treatment
3. Principle of cooling tower
4. Nuclear fission and Nuclear fusion
5. Noise control at transmission path
6. Manufacturing process of Nylon-6
7. Important contaminants related to waste water
8. Full private ownership of CETP
9. Cheese and Butter making process

Q. 3.a) Why we go for the secondary treatment process? Explain the different biological treatment process. [06]

b) Write different methods of dewatering process for the sludge. [06]

OR

b) Explain the different types of solids are present in the waste water sample. [06]

Q.4. a) Explain the different feasibility assessment steps of CETP. [06]

b) Describe the concepts and disadvantages of CETP. [06]

OR

b) Describe the conveyance system and some Preliminary treatments related to CETP. [06]

Q.5. a) What are the different alkaline waste generated during the viscose Rayon manufacturing process with diagram. Write the special treatments for the zinc recovery process. [06]

b). Explain the different wet operations of Cotton textile mill with flow diagram. [06]

OR

b). Draw flow diagram of Black liquor recovery process of Paper mill. Explain the different waste treatment of pulp and paper mill. [06]

Q.6. a) What is NIHL? Describe the most sensitive parts of Human ear and impact of noise on human being. [06]

b) Describe the natural and manmade sources and effects of radiation pollution. [06]

OR

b) Explain the different sources of ionization with examples. [06]

