

BACHELOR OF CONSTRUCTION ENGINEERING EXAMINATION, 2017

(4th Year, 2nd Semester, Old Syllabus)

Environmental Engineering

Time : Three hours

Full Marks : 100

Answer any *five* questions.

- $5+8+7=20$
1. a) What do you mean by pollutant? we can define anything as pollutant-explain in your words.
b) How sampling is done in designing a treatment plant- explain in detail.
c) How will you determine/decide the flow sheet for treatment of a particular waste water- comment in brief.
- $10+10=20$
2. Mention the basic constituents of conventional waste water and their source also. Draw with neat sketches the primary and secondary flow sheets with due labels in the units drawn.
- $5+15=20$
3. What is a septic tank. Give a guide line in designing a septic tank.
- $4+4 \times 4=20$
4. What do you mean by activated sludge process? Write brief notes on the following:
a) MLSS, b)MLVSS, c)F/M ratio, d)Recirculation ration
- $5+15=20$
5. What do you mean by free chlorine? Give a brief account on what happens in disinfecting wastewater which contains primarily ammonia.
- $10+10=20$
6. a) What are types of air pollutants? Give a brief note on the same .
b) Mention types of sources of air pollution and briefly explain them.