

BIRLA INSTITUTE OF TECHNOLOGY, MESRA, RANCHI
(END SEMESTER EXAMINATION M02022)

CLASS: M.TECH/M.SC./I.MSC
BRANCH: CAAD/ET/BT/CSE/IT/ECE/RS/MBT/MGI/PHYSICS/IPH

SEMESTER : III/I/VII
SESSION : M02022

SUBJECT: CE578 WASTE MANAGEMENT

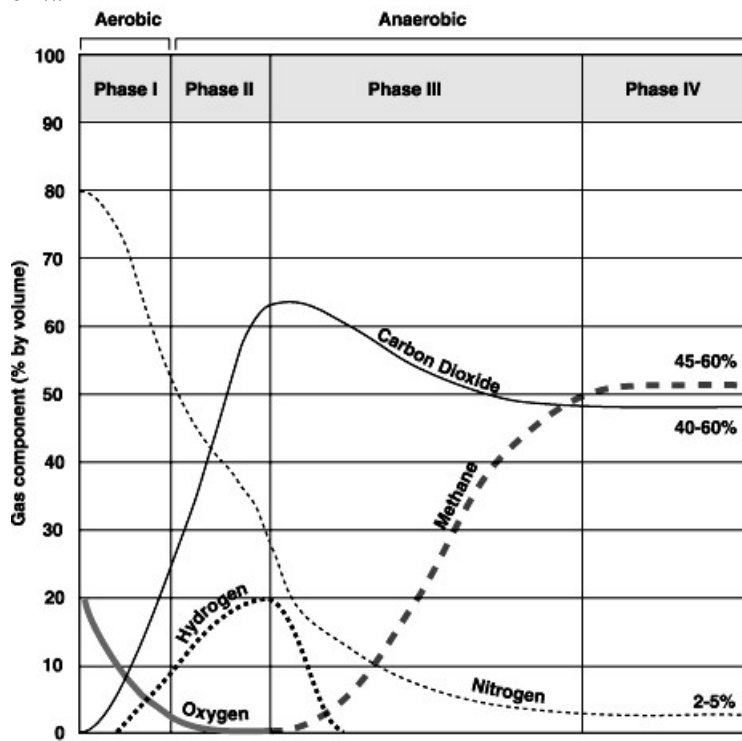
TIME: 03 Hours

FULL MARKS: 50

INSTRUCTIONS:

1. The question paper contains 5 questions each of 10 marks and total 50 marks.
2. Attempt all questions.
3. The missing data, if any, may be assumed suitably.
4. Tables/Data handbook/Graph paper etc., if applicable, will be supplied to the candidates

	Marks	CO	BL
Q.1(a) Explain the process influencing parameters in composting of MSW.	5	1	2
Q.1(b) Analyze the diagram below and classify the different phases of gas production in MSW landfill.	5	1	4



Q.2(a) Describe the sources and health impacts of hazardous waste.	5	2	2
Q.2(b) Discuss the physico-chemical processes for the treatment of hazardous waste.	5	3	2
Q.3(a) Interpret the different technologies for the treatment of biomedical waste.	5	3	3
Q.3(b) Describe the methods for the management of radioactive waste.	5	3	2
Q.4(a) Describe any one technique to produce energy from solid waste.	5	4	2
Q.4(b) Explain the processes to generate hydrogen from organic waste.	5	4	2
Q.5(a) With the help of a neat sketch describe the process of municipal wastewater treatment.	5	5	3
Q.5(b) Illustrate the process of anaerobic digestion for the management of sewage sludge.	5	3, 5	3