Q. Code:356617									

Marks

CO

**RBT** 

Reg.No.

## **B.E / B.TECH. DEGREE EXAMINATIONS, MAY 2024**

Eighth Semester

## **CH18020- PROCESS PLANT UTILITIES**

(Chemical Engineering)

(Regulation 2018/2018A)

TIME:3 HOURS MAX.MARKS: 100

Apply the knowledge on the various process plant utilities

Discuss the concept of refrigeration, compressor and cooling towers.

Explain an efficient operation is imperative for economic and safe operation is essential for the survival of industries.

Provide an insight into the types of fuel used for power generation.

Identify the effective ways of waste disposal.

## **PART-** A(10x2=20Marks)

(Answer all Questions)

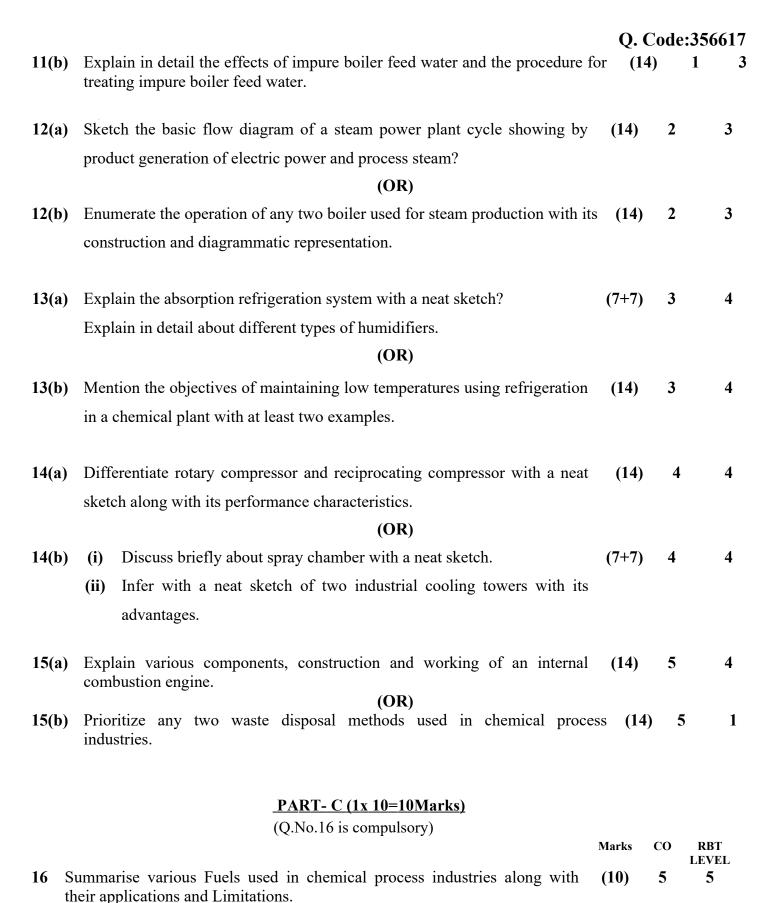
		Marks	CO	RBT LEVEL
1	List the pre-requisites for members used in reverse osmosis.	2	1	2
2	Write the purpose of treating boiler water.	2	1	2
3	Illustrate important functions of Steam traps.	2	2	2
4	Differentiate forced and Induced draft.	2	2	2
5	Classify the refrigerants used in air-conditioning.	2	3	2
6	Define COP for the ideal simple refrigerator.	2	3	2
7	Differentiate between reciprocating compressors and vacuum pumps.	2	4	2
8	Justify the importance of Lubrication in Compressor.	2	4	2
9	Classify the Internal combustion engine based on application.	2	5	2
10	Brief Coke as fuel with its classification.	2	5	2

## **PART- B (5x 14=70Marks)**

(Restrict to a maximum of TWO subdivisions)

		IVILLI KS	00	LEVEL
11(a)	Write about pre-requisites of industrial water and explain the methods	(14)	1	3
11(a)		(14)	1	
	involved in water treatment.			

(OR)



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