B.TECH. DEGREE EXAMINATION-Nov-Dec.2018 End Semester Examination-I Semester BBSBS1022-Engineering Chemistry (Regulations 2017)(Common to AELE, CSE, ECE, and IT Branches) Time : 3 Hours Maximum : 100 Marks Question Code:51312A Answer ALL Questions PART-A (10 X 2=20 Marks) 1. (a) Cation exchange resin exchangesion (CO1] [PO1] (a) Anion (b) Cation (c) Both (d) None (b) Temporary Hardness is removed by	(G	IET N	MAIN					OUS,				
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	(h) Define Octane Number and	l Cetane	Nun	nber								[CO3][PC)2]
	(i) Give two examples of therm	noplasti	c the	rmoset	ting p	olastic						[CO4][PC)1]
(J) Kewrite the two uses of PVC. [CO4][PO1]	(j) Rewrite the two uses of PV	C.										[CO4][PC)1]

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PART-C (4 X 15=60 Marks)

3. (a) (i) Distinguish between scale and sludge.(ii) What is hardness ? How hardness of water can be calculated by EDTA method.	[5][CO1][PO1] [10][CO1][PO1]
(or)	
(b) (i) Why coagulants are used in cold lime soda process. Write any two coagulants.(ii) Explain the softening of water by in exchange process.	[5][CO1][PO1] [10][CO1][PO1]
 4. (a) (i) Differentiate between wet and dry corrosion. (ii) Define corrosion and Explain wet corrosion with example. (or) 	[5][CO2][PO1] [10][CO2][PO1]
(b) (i) How the nature of oxide films affects the corrosion. Discuss with suitable example.(ii) Discuss various factors that influence the rate of corrosion.	[5][CO2][PO1] [10][CO2][PO1]
 5. (a) (i) Define the term cracking and discuss about thermal cracking. (ii) Write the advantages of LPG and CNG. 	[7][CO3][PO1] [8][CO3][PO1]
(b) (i) Write short notes on fractional distillation of petroleum.(ii) What do you mean by knocking? What are the antiknocking agent used?	[7][CO3][PO1] [8][CO3][PO1]
 6. (a) (i) Explain Polyaniline (ii) Define polymer . Write the classification of polymer. (or) 	[7][CO4][PO1] [8][CO4][PO1]
 (b) (i) Difference between thermoplastic and thermosetting plastic. (ii) Write the polymerization, properties and uses of the following (a) PVC (b)PE 	[5][CO4] [PO1] [5+5][CO4][PO1]

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