DR. BABASAHEB AMBEDKAR TECHNOLOGICAL UNIVERSITY, LONERE - RAIGAD -402 103 Mid Semester Examination -December - 2017

Branch: B. Tech. Elect/Extc/Comp/IT (Group B)	Sem.:- I	
Subject with Subject Code: - Engineering Chemistry (103)	Marks: 60	
Date:- 15/12/2017	Time:- 3 Hr.	

	Marking So	cheme/Answer key
Que.1		Mark
a)	Cation exchange resin reaction	01
	Anion exchange resin reaction	01
	Diagram of process	02
	Explanation of process	01
	Advantages and disadvantages	01
b)	Introduction of Hardness	01
	Reaction of EBT and EDTA with Ca	01
	Structure of EBT and EDTA complex	01
	Procedure of process	02
	Formula for calculation	01
c)	Introduction of COD	01
	Reaction of COD	01
	Procedure of Process	02
	Formula for Calculation	01
	Significance of COD	01
Que. 2		
a)	Introduction of Phase Rule	01
	Phase rule equation	01
	Definition of component	01
	Examples of component	03
b)	Definition of Eutectic Point	01
	Phase diagram of Silver –lead	02
	Explanation of curve	01
	Explanation of area	01
	Explanation of eutectic point	01
Que. 3		
a)	Definition of Electrolytic refining	01
	Diagram of copper refining	02
	Explanation of diagram	02
	Significance/ importance of process	01

Marking Scheme/Answer key

b) Meaning of Gravity separation	01
	Diagram of process	01
	Explanation of process	01
	Meaning of Magnetic separation	01
	Diagram of process	01
	Explanation of process	01
Que.	4	
` a) Classification of fuel	02
	Eight Characteristics of good fuel	04
	(Each one ½ Mark)	
Ь) Introduction of coal analysis	01
U	Meisture content	01
	Volatilo matter	01
	volatile matter	02
	70 OF ASIT	01
	Fixed caliboli	01
с) Introduction of lubrication	01
	Diagram of thin film lubrication	01
	Explanation of thin film lubrication	01
	Examples	1/2
	Diagram of thick film lubrication	01
	Explanation of thick film lubrication	01
	Examples	1⁄2
Que.	5	
a)	Introduction of Fermentation	01
	Reactions of fermentation	01
	Fermentation process diagram	01
	Explanation of process	02
	Properties and used alcohol	01
b)	Synthesis of Pyridine	02
,	Physical properties	01
	Chemical Properties	02
	Uses of pyridine	01
	6	
ريري. ما	~ Definition of Ohms Law	01
ч,	Definition of Specific Conductance	01
	Definition of Equivalent Conductance	01
	Definition of Molecular conductance	01
	Definition of Cell constant with formula	02
		52
b)	Postulates of Debye Huckel theory	02
	Asymmetric effect	03
	Electrophoretic effect	01

c)	Introduction of electrode	01
	Diagram of Glass electrode	02
	Construction and working of electrode	02
	Advantages of electrode	01

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