

SET-3

G.PULLAIAH COLLEGE OF ENGINEERING & TECHNOLOGY: KURNOOL
(AUTONOMOUS)

I.B.Tech, II SEM I MID Examination, September - 2021.
(CSE & CAI)

Sub: Chemistry
Time: 110 Minutes

Date: 16-9-2021
Max.Marks: 30

Answer any three questions (3X10=30M)

Q.NO	Questions	Marks	Unit	CO	Cognitive Level
1.	(a) Write a short note on Planck's quantum theory?	5M	I	CO 1	Under stand
	(b) Emphasis the salient features of CFT.				
2.	List the characteristics of MOT . Draw the energy level diagrams of CO and O ₂ molecule.	10M	I	CO 1	Under stand
	(OR)				
3.	Explain with an example Crystal field splitting of d-orbitals in Octahedral Complexes.	10M	I	CO 1	Remember
	(OR)				
4.	By charging and discharging reaction explain in detail about the Lead -acid battery with a neat sketch.	10M	II	CO 2	Under stand
	(OR)				
5.	Discuss with a neat sketch, the construction, working and reactions of methanol-oxygen fuel cell. Give its applications.	10M	II	CO 2	Analyze
	(OR)				
6.	(a) Explain photovoltaic cell with applications	5M	I	CO 2	Remember
	(b) Write a short note on Lithium ion cell? Mention its applications?				

Signature of the Faculty

Signature of the HOD

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1. Explain the preparation, properties and applications of Bakelite.

Marks	Unit	CO	Cognitive Level
10M	III	CO 3	Under stand

(OR)

2. a) Discuss the mechanism of anionic mechanism of addition polymerization.
 (b) Explain in detail the Cationic Mechanism in addition polymerisation.
3. State Beer-Lambert's law. Explain how this can be used to determine the concentration of colored solutions.

5M	III	CO 3	Under stand
5M	III	CO 3	Under stand
10M	IV	CO 4	Remember

(OR)

4. Explain the characterization and applications of electromagnetic spectrum.
5. Explain in detail the Sol-gel method of synthesis of nano materials

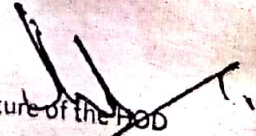
10M	IV	CO 4	Under stand
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(OR)

6. a) Discuss the properties and applications of colloids.
 b) Write a note on micelles?

5M	V	CO 5	Analyze
5M	V	CO 5	Remember

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