

I B. Tech II Semester Supplementary Examinations, July/August - 2021

APPLIED CHEMISTRY

(Com. to CSE, IT, EIE, ECE, E Com E)

Time: 3 hours

Max. Marks: 70

- Note: 1. Question paper consists of two parts (**Part-A** and **Part-B**)
2. Answering the question in **Part-A** is Compulsory
3. Answer any **FOUR** Questions from **Part-B**
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PART -A

1. a) What are biodegradable polymers? Give examples. (2M)
- b) Why is alkaline pyrogalllic acid used in Orsat apparatus? (2M)
- c) What is meant by pitting corrosion? (2M)
- d) What is meant by R_4M_4 ? (2M)
- e) What are normal and inverse spinels? Give examples. (2M)
- f) What is meant by Thermal conversion and photo conversion? (2M)
- g) How is water removed from crude oil? (2M)

PART -B

2. a) Explain cationic mechanism of addition polymerization. (7M)
- b) Discuss aramid fiber reinforced plastics. (7M)
3. a) Explain octane and cetane knocking. (7M)
- b) Discuss classification of explosives. (7M)
4. a) Explain standard electrodes taking standard hydrogen electrode as example. (7M)
- b) Discuss how design and material selection helps to protect metal from corrosion. (7M)
5. a) Explain Sol-gel method for preparation of nanomaterials. (7M)
- b) Discuss the properties and applications of super conductors. (7M)
6. a) State about the close packing of atoms and ions. (7M)
- b) Write a note on chalcogen photo or semiconductors. (7M)
7. a) Explain the design and working of Tidal and wave power. (7M)
- b) Write notes on Biomass and biofuels. (7M)