

I B. Tech II Semester Supplementary Examinations, March - 2022**APPLIED CHEMISTRY**

(Com. to CSE, IT, EIE, ECE, ECom 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 isotactic and syndiotactic polymers? (2M)
- b) What is diesel knocking? (2M)
- c) Explain reversible and irreversible cells. (2M)
- d) What are fullerenes? (2M)
- e) Explain normal and reverse spinels with example. (2M)
- f) What are non-conventional energy sources? (2M)
- g) What is meant by galvanizing and tinning? (2M)

PART -B

2. a) Explain the preparation and uses of BUNA-N. (7M)
- b) What are conducting polymers? Discuss intrinsic conducting polymers. (7M)
3. a) Explain the working of bomb calorimeter. (7M)
- b) Explain octane number and cetane number. Explain the role of antiknocking agents and give examples. (7M)
4. a) Discuss (i) Dry cell (ii) Calomel electrode (7M)
- b) Discuss the environmental factors affecting rate of corrosion. (7M)
5. a) What are carbon nanotubes? Explain its types. (7M)
- b) Explain sol-gel method for preparation of nanomaterials. (7M)
6. a) Discuss the preparation methods of pure semiconductors. (7M)
- b) What are semiconductor devices? Explain junction transistors. (7M)
7. a) Explain the working of hydropower plant. (7M)
- b) Explain ocean thermal energy conversion and its types. (7M)