

*



C14-A-AA-AEI-BM-CH-CHST-C-CM-EC-
EE-CHPP-CHPC-CHOT-PET-GT-M-
RAC-MET-MNG-IT-TT-PCT-104

4004

BOARD DIPLOMA EXAMINATION, (C-14)

MARCH/APRIL—2021

FIRST YEAR (COMMON) EXAMINATION

ENGINEERING CHEMISTRY AND ENVIRONMENTAL STUDIES

Time : 3 hours]

[Total Marks : 80

PART—A

4×5=20

- Instructions :** (1) Answer *any five* questions.
(2) Each question carries **four** marks.
(3) Answers should be brief and straight to the point and shall not exceed five simple sentences.

1. What are fundamental particles? Mention their names.
2. Define oxidation number and valency.
3. Define mole and molarity.
4. Define ionic product of water.
5. What are electrolytes and non-electrolytes?
6. Write essential qualities of drinking water.
7. Write the characteristics of plastics.
8. What are primary and secondary fuels? Give one example for each.

*

9. Define BOD and COD.
10. Define air pollution and water pollution.

PART—B

15×4=60

Instructions : (1) Answer *any four* questions.
(2) Each question carries **fifteen** marks.
(3) Answers should be comprehensive and criterion for valuation is the content but not the length of the answer.

11. Define ionic bond. Explain the formation of ionic bond in NaCl.
12. Explain Lewis acid-base theory.
13. Write the differences between metals and non-metals.
14. State and explain Faraday's Laws of electrolysis.
15. Explain the mechanism of rusting of Iron.
16. Explain the municipal treatment of drinking water.
17. What is vulcanisation of rubber? Explain the process with equation.
18. Explain green house effect and acid rain.

★ ★ ★

*