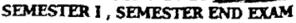
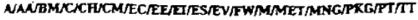
## STATE BOARD OF TECHNICAL EDUCATION AND TRAINING TELANGANA

DIPLOMA EXAMINATION (C-18)
RATIONALISED-NOV-21-SUPPLY







General Engineering Chemistry



PCODE 6104

Duration: 2 Hours

[Total Marks: 40]

## PART-A

Instructions:

1. Answer the following questions.

8 X 1 = 8

2. Each question carries ONE mark.

- Mention the fundamental particles of an atom.
- Write the formula for calculation of equivalent weight of base.
- 3. What is the nature of H<sub>2</sub>O in the following equation?

NH<sub>2</sub> + H<sub>2</sub>O → NH<sub>4</sub>? +OH

- State any two causes of deforestation.
- Define hardness of water.
- Define strong electrolyte.
- What are the oxidation numbers of P and Na in a compound or ion?
- Define reverse osmosis.

## PART-B

Instructions:

713

1. Answer any FOUR questions.

 $4 \times 3 = 12$ 

2. Each question carries THREE marks.

Explain the anomalous electronic configurations of chromium and copper.

What are tyophine and tyophobic colloids? Give one example for each colloid.



Write the importance of pH.

Write a short note on the following:

i) COD

ii) BOD

(H)(H)

What is potable water? Write any five essential qualities of drinking water. Calculate the electrochemical equivalent of a trivalent atom with gram atomic weight 27g.

## PART-C

Instructions

1. Answer any FOUR questions.

4 X 5 = 20

2. Each question carries FTVE marks.

- Define covalent bond and explain the formation of a covalent bond with oxygen as an example
- 16 Classify solutions based on the physical state of solvent and solute. Give examples.
- What is a buffer solution? Explain the buffer action of the basic buffer solution.
- 13 Explain any five threats to biodiversity.
- 19. Explain the desalination process of sea water by electrodistysis
  - 20 Explain Faraday's laws of electrolysis.

4.2