

BACHELOR OF TECHNOLOGY (C.B.C.S.) (2014 COURSE)
B.Tech.Sem - VI CHEMICAL :SUMMER- 2022
SUBJECT : PROCESS INSTRUMENTATION & INSTRUMENTAL METHODS
OF ANALYSIS

Day : Tuesday
Date : 21-06-2022

S-13511-2022

Time : 02:30 PM-05:30 PM
Max. Marks : 60

N.B.:

- 1) All questions are **COMPULSORY**.
 - 2) Figures to the right indicate **FULL** marks.
-

Q.1 Describe the types of temperature measurement devices with neat and labelled diagram. [10]

OR

Explain ultrasonic level detector in detail. What are its advantages & disadvantages? [10]

Q.2 What is pH metry? Give its applications as instrumental method of analysis. [10]

OR

How molar compositions of complexes is determined using visible spectrophotometry? [10]

Q.3 Describe the types of conductometric titrations in detail. [10]

OR

Explain Refractometry and give its applications. [10]

Q.4 What are the theoretical principles of chromatography? Give its applications. [10]

OR

What is high performance liquid chromatography? Explain its principle and construction in detail. [10]

Q.5 What is process dynamics? Give classification of process. [10]

OR

Explain the dynamic behavior of first order system with example. [10]

Q.6 What are the different types of controllers? [10]

OR

What are control valve characteristics? Explain Air to open and Air to close valve. [10]

* * * * *
