



V. P. & R. P. T. P. SCIENCE COLLEGE
VALLABH VIDYANAGAR – 388 120

Internal Examination

US05CINV04: ANALYTICAL INSTRUMENTATION

Date: 7th October 2019, Time: 11:00 am to 12:15 pm

Total Marks: 25

Q-1. *Select appropriate answer -*

[5]

- i pH of water is 7 because number of hydrogen ions are.....hydroxyl ions.
(a) greater than (b) less than (c) equal to (d) none
- ii The term “Plug” is used in process.
(a) detection (b) sample injection (c) heating (d) none
- iii The name of chromatography is defined from its.....
(a) two phases (b) stationary phase (c) three phases (d) mobile phase
- iv Response time of any detector should be
(a) very long (b) very short (c) long (d) not required
- v Snell’s law is used in detector.
(a) Thermal (b) Fluorescence (c) Conductivity (d) Refractive Index

Q-2. Draw neat diagram of Reference electrode and explain it.

[5]

OR

Q-2. Write design considerations of pH meter and explain Zero corrected dc Amplifier type pH meter.

[5]

Q-3. Describe working principle of Flame Ionization Detector with its limitations.

[5]

OR

Q-3. Draw block diagram of Gas Chromatography and discuss its components in brief.

[5]

Q-4. Discuss operation of Reciprocating Piston pump used in LC.

[5]

OR

Q-4. Explain flow measurement and control system in HPLC.

[5]

Q-5. Explain with neat diagram Fluorescence detector.

[5]

OR

Q-5. Describe UV absorbance detector with neat figure.

[5]

*****Best of Luck *****