

ONLINE SECOND MID TERM EXAMINATION (20th JANUARY 2022)

M.Sc. (Industrial Chemistry) 3rd Semester

Subject: Process Instrumentation

Time allowed: 1 Hour

Max. Marks: 25

- I. Draw a neat sketch of 'Optical Pyrometer' and explain its principle, construction and operation. 7
- II. A mercury thermometer has a bulb, capillary and spiral volumes of 8 cc, 2.0 cc and 1.0 cc, respectively. The range of instrument is from 0 to 50°C. The ambient temperature changes are $\pm 4^\circ\text{C}$. What is the ambient error in % of span? 4
- III. With the help of neat a diagram, explain the working of a pneumatic force meter for weight measurement. 7
- IV. Discuss a bourdon gauge with the help of a neat sketch.

OR

Describe a strip chart with the help of a neat sketch. 7
