

Total No. of Pages:

1

Register Number:

7200

Name of the Candidate:

DIPLOMA EXAMINATION, 2010
(CHEMICAL PROCESS INSTRUMENTATION AND CONTROL)
(PAPER-II)

120. CHEMICAL PROCESS INSTRUMENTATION

Dec]

[Time : 3 Hours

Maximum : 100 Marks

Answer any FIVE questions

(5×20=100)

1. With a neat diagram explain the principle and working of a PIV (Particle Image Velocimeters). (20)
2. a) Discuss in detail about dynamic characteristics of various measuring devices. (10)
b) Explain the principle and working of a weighing machine. (10)
3. a) Discuss about various sensors used for temperature measurement. (10)
b) Explain about the equipments using radiant energy and magnetic properties for temperature measurement with neat diagram. (10)
4. Elaborately explain the physical, mechanical, thermal and electrical properties for measurement of pressure. (20)
5. Elaborately explain the principle, working and applications of orifice meter and venturimeter. (20)
6. a) With a neat sketch explain the working of hot wire anemometer for the velocity measurement. (10)
b) Explain how flow measurement of solid is done. (10)
7. Explain in detail about sample introduction, separation column and detectors in liquid column chromatography. (20)
8. Elaborately discuss about UV spectroscopy and dust monitoring instrument. (20)
9. Discuss about
(i) Data recorders (10)
(ii) Layout of instrumentation system (10)
10. Discuss in detail about single scanning and logging devices. (20)
