Q.16 Explain in brief the working of a U-tube manometer.

Q.17 Explain in brief capacitive pressure transducers.

Q.18 Explain open-loop control system in brief.

Q.19 Explain different types of valves and its characteristics.

Q.20 Explain working of orsat analyzers in brief.

Q.21 Explain DCS system.

Q.22 Explain with neat sketch the working of sight glass used for level measurements.

SECTION-D

Note: Long answer type questions. Attempt any two questions out of three questions. (2x8=16)

Q.23 Explain with neat diagram the working principle and constructional details of radiation pyrometer detector.

Q.24 Explain with block diagram representation the concept and components of an automatic control system.

Q.25 Name the various types of filled type thermometers. Explain the working of any one with neat diagram.

No. of Printed Pages : 4 220664B
Roll No. .....

6th Sem / Chem. (P&P)

Subject:- Process Instrumentation & Control

Time : 3Hrs. M.M. : 60

SECTION-A

Note: Multiple choice questions. All questions are compulsory (6x1=6)

Q.1 In radiation level detector, when the liquid level in the tank rises, the amount of radiation received is

a) Increased b) decreased

c) unchanged d) None of the above

Q.2 The performance of capacitance level indicator is adversely affected by dirt, because due to change of

a) area of plate

b) distance between two plates

c) dielectric constant

d) None of the above

Q.3 Ph of acidic solution is

a) greater than 7 b) less than 7

c) equal to 7 d) None

Q.4 One torr is defined as

a) One mm Hg b) One inch Hg

c) One atmosphere d) One kilopascal

Q.5 Set-point of a system is also called

a) manipulated variable

b) desired variable

c) controlled variable

d) Disturbance

Q.6 Span is

a) law & high value b) low value

c) difference between high & low value

d) high value

SECTION-B

Note: Objective/Completion type questions. All questions are compulsory. (6x1=6)

Q.7 Define Input Step & ramp.

Q.8 Define sensitivity.

Q.9 Define drift.

Q.10 Convert 100°F into °C.

Q.11 Define PH.

Q.12 Name any two electrical temp measuring instruments.

SECTION-C

Note: Short answer type questions. Attempt any eight questions out of ten questions. (8x4=32)

Q.13 Explain radiation level detector in brief.

Q.14 Explain with block diagram the functional elements of an instrument.

Q.15 Write different sources of errors in filled type thermometer.