Q.26 Explain the working principle of thermocouple.

Q.27 Discuss the IR detectors for temperature measurement.

Q.28 Discuss the fiber optics thermometer.

Q.29 Write short note on inclined type and well type manometer.

Q.30 Discuss the working principle of turbine flow meter.

Q.31 How the level measurement by using restive transducer?

Q.32 Explain the method of level measurement by using gamma rays method.

Q.33 Describe any two method medium pressure measurement.

Q.34 Explain the working principle of Mc Leod gauge.

Q.35 Explain the working principle of pirani gauge and ionization gauge.

Section-D

Note: Long answer questions. Attempt any two question out of three Questions. (2x10=20)

Q.36 Explain construction, principle and working of thermocouple, thermistor, and radiation pyrometer.

Q.37 How the level measurement by transducer

a) Capacitive b) Inductive c) restive.

Q.38 Describe the working principle of IR detector and fiber optics thermometer.

No. of Printed Pages : 4 181554/121554/031554

Roll No. .....

5th Sem., Branch : IC, EI
Subject : Process Instrumentation

Time : 3 Hrs. M.M. : 100

SECTION-A

Note: Multiple type Questions. All Questions are compulsory. (10x1=10)

Q.1 Unit of frequency

a) Hz b) 1/Sec

c) Both A & B d) None of these

Q.2 Which of the transducer is used temperature measurement?

a) Thermocouple b) U-tube manometer

c) Bellows d) None of these

Q.3 Rota meter is used for measurement-

a) Temperature b) Flow

c) Pressure d) Level

Q.4 Unit of pressure

a) Newton b) Pascal

c) N/m^2 d) Both B & C

Q.5 themocouple is used to measure_____.

a) Level b) Temperature

c) Flow d) Difference

Q.6 Thermistor is a

a) + ve temp coefficient resistance

b) - ve temp coefficient resistance

c) Both A & B

d) None of these

Q.7 Unit of resistance is _____.

a) Hz b) Ohm

c) Second d) Pascal

Q.8 Which of the following temperature sensor used for low range application?_____.

a) RTD b) Thermocouple

c) Thermistor d) Gas thermometer

Q.9 High pressure measurement by

a) Bridgeman gauge b) Pirani gauge

c) Ionization guage d) Both B & C

Q.10 Level measurement by

a) Resistive transducer b) Inductive transducer

c) Capacitive transducer d) All of these

Section-B

Note: Objective type questions. All questions are compulsory. (10x1=10)

Q.11 Principle of thermocouple is _____.

Q.12 Unit of force _____.

Q.13 Manometer measure the _____.

Q.14 Burdon tube elastic pressure tranducer_____.

Q.15 Bridgman gauge is use to measure _____ pressure.

Q.16 Orfice is always placed in vertical position (Yes/No)

Q.17 Venture meter is used to measure _____ rate.

Q.18 Level measurement by capacitive transducer (yes/No)

Q.19 Principal of thermos couple guage is based on _____.

Q.20 What is the unit of inductor?

Section-C

Note: Short answer type Question. Attempt any twelve questions out of fifteen Questions. (12x5=60)

Q.21 Explain the working principle of vernturimeter & orfice flow meter.

Q.22 Discuss the working principle of thermocouple.

Q.23 What is the principle ultrasonic flow meter, and write their advantages?

Q.24 Discuss the principle of capacitive transducer.

Q25 Discuss in detail with electromagnetic flow meter.