Q.34 Discuss the potentiometric method for vibration measurement.

Q.35 Explain photo transistor in brief.

Section-D

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

Q.36 Explain about any one type of angle measuring instruments in detail.

Q.37 Explain tachogenerator in detail? Give its applications.

Q.38 Write a short note on :

a) Measurement of thickness by ultrasonic method.

b) Measurement

6th Sem,

Branch : Instrumentation & Control, EL

Subject : Advanced Measurement Techniques

Time : 3 Hrs. **M.M. : 100**

SECTION-A

Note : Multiple choice questions. All questions are compulsory. (10x1=10)

Q.1 LVDT is a/an _____ transducer.

a) Magnetostriction
b) Resistive
c) Inductive
d) Eddy Current

Q.2 Measuring System Consists of?

a) Sensor
b) Variable conversion element
c) Signal Processing element
d) All of these

Q.3 Which device is used to measure the temperature of an object?

a) Thermometer b) Odometer
c) Potentiometer d) Galvanometer

Q.4 The resistance of LDR_____when exposed to Radiant energy.

a) Remains unaltered
b) Increases
c) Reaches maximum
d) Decreases

Q.5 Acceleration = _____.

a) Distance / Time c) Velocity / Time

c) Speed / Time d) Speed / Velocity

Q.6 Which of the following is a digital transducer?

a) Strain gauge b) Encoder

c) Thermistor d) LVDT

Q.7 Which of the quantity consists of SI unit as candela?

a) Velocity b) Luminous intensity

c) Impulse d) Force

Q.8 Expand LVDT

a) Linear Variable Differential Tansducer

b) Linear Variable Differential Tranformer

c) Light Variable Differential Transformer

d) Linear Variac Differential Transformer

Q.9 Write the formula of distance

a) Speed x Time b) $\frac{\text{Speed}}{\text{Time}}$

c) $\frac{\text{Time}}{\text{Speed}}$ d) $\frac{\text{velocity}}{\text{Acceleration}}$

Q.10 Deflecting torque in an instrument may be produced

a) Magnetically b) Electrostatically

c) Thermally d) any of the above

Section B

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

Q.11 Write the unit of Temperature.

Q.12 Define transducer.

Q.13 Expand LDR.

Q.14 Thyristor.

Q.15 Write the unit of resistance.

Q.16 What is light attenuation?

Q.17 Write the full form of LVDT.

Q.18 Draw symbol of photo transistor.

Q.19 Conductor.

Q.20 Write the formula of velocity.

Section-C

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

Q.21 Explain any one type of light modulation technique.

Q.22 Discuss basic functional elements of a measuring system.

Q.23 Protector is an instruments used for?

Q.24 Explain stroboscope in brief.

Q.25 Differentiate between graphical method and numerical method.

Q.26 What is velocity and how we can measure the velocity.

Q.27 How can we measure the pH?

Q.28 Describe a method to measure the density.

Q.29 What are the limitation of ultrasonic methods?

Q.30 How we can measure the area of an instrument?

Q.31 Explain working of LDR.

Q.32 What are the input output configuration of instrumentation system?

Q.33 Describe the LED with its construction and operation.