Q.25 Draw & explain the block diagram of CRO?

Q.26 Differentiate between indicating, integrating & recording instruments.

Q.27 Explain the different errors in energy meter.

Q.28 Differentiate between active and passive transducers

Q.29 Draw & explain the working of dynamo meter type single phase power factor meter.

Q.30 Why the secondary of current transformer are never be open circuited?

Q.31 What is shunt resistance? How it is to be used to increase the range of ammeter.

Q.32 Analyze the working principle of synchroscope with neat sketch.

Q.33 Explain any one method of flow measurement.

Q.34 Write a short note on LCR meter.

Q.35 Analyze the working of RTD.

SECTION-D

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

Q.36 Explain in detail two wattmeter methods to measure power in three phase circuit (Balanced load).

Q.37 Write short note on

1. Applications of CRO
2. LVDT

Q.38 Describe the construction, working of moving iron instruments.

Roll No. .....

3rd Sem / Elect., Power Stat. Engg., Elect. & Eltx. Engg.

Subject:- Electrical Measurement and Measuring Instrument

Time : 3Hrs. M.M. : 100

SECTION-A

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

Q.1 The energy meter can be classified as a/an instrument_____

a) deflecting b) integrating

c) indicating d) All of three

Q.2 Moving iron instruments can be used for measuring _____.

a) DC b) AC

c) both d) none

Q.3 In a circuit voltmeter is always connected in_____.

a) Parallel b) Series

c) both d) none

Q.4 The power of a n-phase circuit can be measured by using a minimum of_____.

a) (n-1) Watt meter b) n Watt meter

c) (n+1) Watt meter d) none of these

Q.5 Phosphor coating for CRT is provided on_____.

a) Inside surface b) out side surface

c) both a & b d) none of these

Q.6 Full form of CRO is

a) Cathode ray object

b) Cathode ray oscilloscope

c) both a & b

d) none of these

Q.7 Potential transformer uses as_____

a) Step-up b) centre tap

c) Step-down d) none

Q.8 The maximum value of power factor is_____.

a) 0 b) 1

c) 2 d) none of these

Q.9 LVDT has_____ Secondary.

a) 1 b) 2

c) 4 d) None of these

Q.10 The speed of energy meter can be controlled by_____

a) Series magnet b) Shunt magnet

c) Braking magnet d) none of these

SECTION-B

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

Q.11 What is controlling torque?

Q.12 Why delay line used in CRO?

Q.13 Most commonly used wattmeter is_____.

Q.14 Define LCR meter.

Q.15 What is the use of clamp on meter?

Q.16 Creeping is phenomenon which occurs in wattmeter? (True/False)

Q.17 Thermocouple is based on_____ effect.

Q.18 Indicating instruments are also called secondary instruments? (True/False)

Q.19 Define Deflecting torque.

Q.20 Reading of meggar when connected across a short circuited cable will be_____.

SECTION-C

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

Q.21 Why voltmeter should have high input impedance? Explain briefly.

Q.22 Describe the working principle & construction of PMMC instruments.

Q.23 Derive an expression for the deflecting torque of dynamo meter type wattmeter.

Q.24 Explain the construction & working of maximum demand indicator.