

### SECTION-D

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

- Q.23 Explain in detail thermocouple type instrument.  
Q.24 How we can measure capacitance explain in detail.  
Q.25 Explain working and principle of stroboscope.

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### 3rd Sem. / Instrumentation & Control, Medical Electronics

### Subject : Measurement and Instrumentation

Time : 3 Hrs.

M.M. : 60

### SECTION-A

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

- Q.1 Low resistance is measured by:  
a) Maxwell bridge      b) De'sauty bridge  
c) Wheat stone bridge      d) Wein bridge
- Q.2 Sawtooth voltage in CRO is produced in  
a) Hartley oscillator      b) Sweep generator  
c) Culprit oscillator      d) None of the above
- Q.3 In a digital frequency meter, the Schemitt trigger is used for  
a) Scaling of sinusoidal wave forms  
b) Providing time base  
c) Converting sinusoidal wave form into rectangular pulses  
d) None of the above

Q.4 Under which of the following conditions a bridge is balanced

- a) When no current flows
- b) When the temperature of the circuit is high
- c) When power dissipation is high
- d) When no voltage drop across the circuit

Q.5 A CRO has an electron gun having

- a) Grid                                      b) Cathode
- c) Focusing                                d) All of the above

Q.6 When the moving coil in a Dynamo-meter type watt meter deflects \_\_\_\_\_

- a) Pointer does not move
- b) Current Flows
- c) Voltage is generated
- d) Pointer moves

### SECTION-B

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

Q.7 Write the unit of voltage.

Q.8 Expand DFM.

Q.9 Define three phase system.

Q.10 Write the full form of CRT.

Q.11 Wheat stone bridge is used to measure \_\_\_\_\_.

Q.12 What is rectifier?

### SECTION-C

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

Q.13 What is the function of control Grid?

Q.14 Write a short note on Hay's bridge.

Q.15 Differentiate between single phase and three phase system.

Q.16 What are the major components of cathode ray tube?

Q.17 What do you mean by Ammeter, voltmeter?

Q.18 Write various applications of energy metre.

Q.19 Explain DSO in brief.

Q.20 How can we measure power using 2-watt meter method?

Q.21 Explain principle of dynamometer.

Q.22 What is CRO?