Level 5 / 1st. Sem. / DVOC
Medical Imaging Tech.

Subject : Electronic Measurement and
Instrumentation-I

Time : 2 Hrs.   M.M. : 50

SECTION-A

Note: Multiple-choice questions. All questions are compulsory   (5x1=5)

Q.1   The dimensional formula of speed is given by _____

a) $[M^0L^1T^1]$ b) $[M^1L^1T^1]$

c) $[M^0L^2T^1]$ d) $[M^0L^1T^2]$

Q.2   Systematic errors may arise due to different reasons:

a)   Instrument errors   b)   Environment factors

c)   both a & b   d)   None of the above

Q.3   To compare an known value with a standard through a calibrated system is called _____

a)   Direct comparison b)   Indirect comparison

c)   both a & b   d)   None of the above

SECTION-D

Note: Long answer type questions. Attempt any one questions out of two questions.   (1x10=10)

Q.19   What do you mean by an error? What are the different types of error in measurements? Explain them in detail.

Q.20   Discuss the various types of forces / torques required for the operational of measuring instruments.

Q.4 PMMC type of instruments is used in _____ measurements.

a) Only AC   b) Only DC

c) both AC & DC   d) None of the above

Q.5 Multimeter can be used to measure

a) Resistance   b) DC voltage

c) AC voltage   d) All of the above

SECTION-B

Note: Objective type questions. All questions are compulsory   (5x1=5)

Q.6 What do you mean by random error?

Q.7 What is the full form of PMMC?

Q.8 Define the term Accuracy.

Q.9 Give the SI unit for Time.

Q.10 Name the device used for measuring the Power.

SECTION-C

Note: Short answer type questions. Attempt any six questions out of eight questions.   (6x5=30)

Q.11 What are the various systems of unit?

Q.12 Discuss the significance of Standards.

Q.13 How prefix's are helpful in writing the huge values?

Q.14 Differentiate between fundamental and derived units.

Q.15 How you can convert a temperature from Celsius to Fahrenheit?

Q.16 Draw and explain the working of DC ammeter.

Q.17 Discuss the circuit diagram of series ohmmeter.

Q.18 Write a short note on probes used with electronic measurement devices.