

No. of Printed Pages : 4  
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**DVOC (Medical Imaging Technology)**  
**Subject : Electronic Measurement & Instrumentation-I**

Time : 2 Hrs.

M.M. : 50

**SECTION-A**

**Note:**Multiple Choice questions. All questions are compulsory. (5x1=5)

- Q.1 The error occur due to the human mistake in measurement are \_\_\_\_\_  
a) random errors      b) gross error  
c) systematic error    d) environmental errors
- Q.2 Which is the correct notation of dimensional formula for Force?  
a) Mass x acceleration b) Newton  
c)  $[M^1 L^1 T^2]$         d)  $m \times a$
- Q.3 \_\_\_\_\_ is the degree to which a experimental value is very near to the actual value.  
a) Precision              b) Resolution  
c) Mean                    d) Accuracy
- Q.4 Multirange ammeter can uses:  
a) universal Shunt      b) Series Shunt  
c) Parallel Shunt        d) None of the above

- Q.5 Deflecting torque is \_\_\_\_\_ quantity under measurement in PMMC instrument.
- a) directly proportional
  - b) inversely proportional
  - c) directly proportional to square of
  - d) inversely proportional to square of

### SECTION-B

**Note:** Objective type questions. All questions are compulsory.  $(5 \times 1 = 5)$

- Q.6 What do you mean by systematic error?
- Q.7 What is the CGS unit of Mass?
- Q.8 Define the term Resolution.
- Q.9 Give the formula for converting a temperature value from kelvin to Celsius.
- Q.10 What is the scientific notation of 0.00035?

### SECTION-C

**Note:** Short answer type questions. Attempt any six questions out of Eight questions.  $(6 \times 5 = 30)$

- Q.11 What is the importance of scientific notations?

- Q.12 What are the basic units of electricity?
- Q.13 What is the difference between absolute and relative errors?
- Q.14 Distinguish between accuracy and precision.
- Q.15 Discuss the working of DC voltmeter.
- Q.16 Explain with diagram, the working of digital frequency meter system.
- Q.17 What is the importance of Dimensions? Give its examples.
- Q.18 What are the advantages of transistorized voltmeters?

### SECTION-D

**Note:** Long answer type questions. Attempt any one questions out of two questions.  $(1 \times 10 = 10)$

- Q.19 What do you mean by unit? Give the classification of Units along with examples. Also mention various systems of unit.
- Q.20 Explain with block diagram, the working of digital multimeter. Also give the applications of digital multimeter.