

VITHALBHAI PATEL & RAJRATNA P.T. PATEL SCIENCE COLLEGE
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F.Y. B.Sc. SEM: I

INTERNAL TEST

DATE: 03th Oct 2013

SUB: INSTRUMENTATION (VOC.)

TIME: 11:00 pm to 12:00 pm

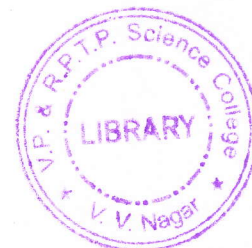
SUB CODE: US01CINV02

TOTAL MARKS: 30

Q. 1 Choose the correct answer.

[06]

- (1) _____ is referring to the deviation from true value of measured quantity.
(A) Error (C) Accuracy
(B) Significant figure (D) None of above
- (2) _____ error is referring short coming of instrument such as defective or worn parts.
(A) Gross (C) Systematic
(B) Random (D) All of above
- (3) The physical quantity thermal is _____ unit.
(A) Fundamental (C) Auxiliary
(B) Length (D) None of above
- (4) Candela is unit of _____.
(A) Mass (C) Length
(B) Temperature (D) None of above
- (5) Working standard has accuracy of _____ ppm.
(A) 2 (C) 3
(B) 4 (D) 5
- (6) 1 yard = _____ meter.
(A) 9.144 (B) 91.44
(B) 19.44 (D) None of above



Q.2 Answer the following in short. (Attempt Three)

[06]

- (1) Define accuracy and precision.
- (2) Define sensitivity and resolution.
- (3) State standard definition of weight (gram) and length (meter).
- (4) Define fundamental and derived units.
- (5) Enlist classification of standards.
- (6) State different standard of measurement.

Q.3 Write a note on gross and random error.

[06]

OR

Q.3 Discuss different method of statistical analysis of observation.

[06]

Q.4 Derived and equation for electrical and magnetic unit.

[06]

OR

Q.4 (A) Velocity of light in free space is given as 2.99×10^{08} m/s. calculate the velocity of light in km/sec and km/hr. [03]

(B) The floor area of building is 5000 m^2 calculate the floor area in cm^2 . [03]

Q.5 Describe the standards for mass, length and volume in detail.

[06]

OR

Q. 5 Describe the standard for time and frequency.

[06]

-: All the best :-