

Extra



V.P. & R.P.T.P SCIENCE COLLEGE
INTERANAL EXAM
S.Y.B.Sc (3rd SEM)
INSRUMENTATION (VOC.)

SUB.CODE :- US03CINV02

TIME : 3:00 PM TO 4:30 PM

DATE :- 01/10/2016

MARKS-25

Q-1 Choose correct answer. [3]

1. When the two terminals are to be at same potential, hence two input terminals are said to be _____

- (A) virtually grounded (C) actually ground
(B) virtually shorted (D) actually shorted

2. _____ gives the triangular output when input is square wave.

- (A) adding integrator (C) differentiator
(B) comparator (D) integrator

3. _____ is also called Free Running Oscillator.

- (A) astable multivibrator (C) pulse width modulation
(B) monostable multivibrator (D) zero-crossing detector

Q-2 Short answer type question. (*attempt any two*) [4]

1. Enlist the ideal characteristics of op-amp.
2. Draw the neat circuit diagram and waveforms of basic comparator.
3. Write applications of Monostable Multivibrator.

Q-3 Explain Block diagram of Operational Amplifier in detail. [6]

OR

Q-3 Derive the equation of Gain for Inverting Amplifier with neat diagram. [6]

Q-4 Explain in detail Differential D.C. Operational Amplifier with neat diagram. [6]

OR

Q-4 Explain in detail Integrator Circuit with neat diagram and waveforms. Also derive its output equation. [6]

Q-5 Explain Square wave generator with neat diagram and waveforms. [6]

OR

Q-5 Explain Monostable Multivibrator in detail with neat diagram and find the equation for total time period T. [6]

BEST OF LUCK