

B.Tech. (Full Time) DEGREE END SEMESTER EXAMINATIONS, NOV / DEC 2012

ELECTRONICS AND COMMUNICATION ENGINEERING BRANCH

Fourth Semester

EC9302- Linear Integrated Circuits

(Regulations :2008)

Time: 3 Hrs.

Maximum Marks 100

Answer All Questions

Part A

10x2=20 Marks

What is a current source?

Define slew rate.

Draw the schematic of op-amp based precision rectifier.

Draw the schematic of current to voltage converter.

What is compander IC?

What is a frequency synthesizer?

What is the role of EOC and SOC in Successive approximation type A/D converter?

What is an analog switch?

List the different sources of noise.

What is an optocoupler?

Part B

5x16 =80 Marks

Draw a neat diagram explain the internal block of operational amplifier. (8)

Explain current mirror and derive the expression for the same. (8)

Draw a neat diagram explain the working of log and antilog amplifiers. (16)

(OR)

With a neat diagram explain the working of inverting Schmitt trigger. (8)

Explain the working of op-amp based integrator and derive the expression for the same. (8)

P.T.O