

RAMAKRISHNA MISSION VIDYAMANDIRA

(Residential Autonomous College under University of Calcutta)

SECOND YEAR

B.A./B.SC. THIRD SEMESTER (July – December), 2011

Mid-Semester Examination, September, 2011

Date : 13/09/2011

ELECTRONICS (General)

Time : 2 pm – 3 pm

Paper : III

Full Marks : 25

Answer all questions :

[$12\frac{1}{2} \times 2 = 25$]

1.
 - a) What do you mean by negative feedback?
 - b) Why it is necessary to make null adjustment for IC 741?
 - c) Calculate the gain of a non-inverting amplifier.
 - d) Differentiate among class A, B and AB amplifiers.
2.
 - a) What is virtual ground of an OP-AMP?
 - b) Draw the different topologies of feedback.
 - c) Explain the functionality of a comparator circuit using OP-AMP.
 - d) What is 'Barkhausen Criterion' for oscillation?

[$2+3+4\frac{1}{2}+3 = 12.5$]

[$2+3+5+2\frac{1}{2} = 12.5$]