

TE. Sem V (Rev)- EXCE- Communication Circuits

K.T Exam

CON/2608-06.

[REVISED COURSE]

TV-8362

(3 Hours)

[Total Marks : 100

- N.B. : (1) Question No.1 is compulsory.
(2) Attempt any four questions out of remaining six questions.

1. Answer the following questions : 20
(a) Explain the concept of the Equivalent noise bandwidth.
(b) Which are the general features of the Audio amplifiers ?
(c) What is broadbanding ? Explain any one method.
(d) Explain the working of PLL as variable modulus divider.
2. (a) Explain the set up and procedure to measure the noise figure of an amplifier. 10
(b) Discuss atleast two points to be taken care of in designing of low noise amplifiers using BJT/FET. 10
3. (a) Discuss in detail the analysis of the series RLC circuit. 10
(b) Explain how impedance matching and harmonic filtering is achieved in the reactive network. Design a lossless coupling network that matches a $10+j5\Omega$ load to the 50Ω source Impedance. 10
4. (a) What is hybrid transformer ? Explain the power transfer in such transformer. 10
(b) Explain the characteristics of IC 3040 video amplifier. 10
5. (a) What is PLL ? Derive the transfer function of the second order PLL. 10
(b) Explain any two application of the PLL. 10
6. (a) Explain the various methods of the frequency synthesis. 10
(b) What is DDS ? With neat block diagram explain its working. 10
7. (a) Describe applications of IC 1596 with circuit diagram. 10
(b) Explain four diode switching type mixer and derive expression for output voltage. 10
