Code: 9A04404

R09

B.Tech II Year II Semester (R09) Supplementary Examinations December/January 2014/2015

PULSE & DIGITAL CIRCUITS

(Common to ECE, EIE, E.Con.E, ECC & MCT)

Time: 3 hours Max. Marks: 70

Answer any FIVE questions

All questions carry equal marks

*****

1 (a) Explain the response of a high pass circuit, if an exponential input is applied.
(b) Write short note on piping process.

2 (a) What is meant by clipping in wave shaping?
(b) Classify different types of clipper circuits. Give their circuits and explain their operation with the aid of transfer characteristics.

3 Write short notes on:
(a) Diode switching times.
(b) Switching characteristics of transistors.
(c) FET as a switch.

4 Explain about various switching conditions of Schmitt trigger.

5 (a) What are sweep circuits?
(b) Explain how you generate a saw tooth waveform with a neat circuit diagram.

6 (a) Explain the operation of series and shunt FET sampling gates.
(b) What are the advantages of FET sampling gates over transistor sampling gates?

7 How synchronization and frequency division are related? What are the methods used for synchronization of monoshot circuit?

8 (a) What is the difference between floating and grounded inputs?
(b) Design and explain the concept of discrete type of gates.

*****