Total No. of Questions : 8] *[Total No. of Printed Pages :2*

Roll No .....

MEVD-302(A)

M.E./M.Tech. III Semester

Examination, June 2017

Communication RF IC Design

(Elective-IV)

Time : Three Hours

Maximum Marks : 70

Note : i) Attempt any five questions out of eight questions.
ii) All questions carry equal marks.
iii) Assume suitable data, if required.

1. a) Give some points to discuss the S parameter models in RF communication system.
   b) Draw and explain the Trans receiver architecture for wireless communication.

2. a) Write short note on gain compression and sensitization.
   b) What do you mean by inter symbol interference? What is the use of this in RF communication?

3. a) What do you mean by RF in a communication system? Explain it with a practical example.
   b) Give the basic concept of RF design in a communication system. Give its practical significances for a system.

4. a) Discuss the PLL theoretical concept for the communication devices.
   b) Explain the designing concept of single chip radio. Explain its various parts.

5. a) Explain the principle of Oscillators in RF communication.
   b) What is the significance of synthesizers in oscillator circuits? Explain with suitable example.

6. a) Give the classification of power amplifiers in RF IC design.
   b) Describe any case study of GSM or Blue tooth device.

7. a) Give the various microwave circuit components use in PLL.
   b) Give the various points for the smith chart calculations.

8. Write short notes (any four) :
   a) DECT
   b) Mixer circuits
   c) IMD
   d) Cross Modulation
   e) Low noise amplifiers
   f) Harmonics and Gain compression

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