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

Roll No .....

MEVD-302(A)

M.E./M.Tech. III Semester

Examination, November 2018

Communication RF IC Design

(Elective-IV)

Time : Three Hours

Maximum Marks : 70

Note : i) Attempt any five questions.
ii) All questions carry equal marks.

1. Discuss the analysis and measurement techniques of RF design.

2. a) Discuss the S-parameter models.
   b) Discuss the Smith chart calculations of RF design.

3. Explain in detail the transreceiver architecture for wireless communication.

4. Explain the following in respect to RF IC design.
   a) Non linearity
   b) Harmonics
   c) Gain compression
   d) Desensitization

5. Discuss the RF IC design concepts and device technologies for designing following devices.
   a) Low Noise amplifier
   b) Mixer
   c) Frequency sources
   d) Oscillators

6. a) Discuss the concept of PLL.
   b) Discuss about the distortion and noises in PLL circuit.

7. a) Discuss about the single chip radio concept.
   b) Discuss the design issues surrounding systems as DECT.

8. Write short notes on any two of the following:
   a) Noise and distortions in LNA
   b) GSM
   c) Bluetooth

******