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

Roll No ....

MEVD-302(A)
M.E./M.Tech. III Semester
Examination, December 2016
Communication RF IC Design (Elective-IV)

Time : Three Hours

Maximum Marks : 70

Note : Attempt any five questions. All questions carry equal marks.

1. a) Give a brief on measurement techniques used in RF design.

   b) Give the definition and properties of S-parameters. What do you understand by reduced order models of S-parameters?

2. a) What are the practical issues for modeling with S-parameters?

   b) Discuss the applications of S-parameters.

3. a) Discuss briefly about the trans-receiver architecture for wireless communication.

   b) Discuss the effect of non linearities on a nonlinear, memory less time variant system.

4. a) Explain how the receiver is desensitized by the interferer. Also explain blocking.

   b) What is Cross modulation? Explain IMD and inter symbol interface.

5. a) Discuss the design concepts of RF low noise amplifiers and Mixers.

   b) Discuss the design of oscillators and synthesisers.

6. a) Discuss the design concepts of power amplifiers.

   b) Explain briefly about the noises and distortions in LNA, PA and Mixers.

7. a) With the help of circuit diagram. Explain the concept of phase lock loop.

   b) Discuss the single chip radio concept.

8. Write short notes on any two of the following :

   a) DECT

   b) GSM

   c) Bluetooth

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