

**B. Tech. Sem -VII (E & TC Engg.) (2014 COURSE) (CBCS) :**  
**SUMMER - 2019**  
**SUBJECT: RADIO FREQUENCY ENGINEERING**

Day: Tuesday  
Date: 14/05/2019

Time: 02.30 PM TO 05.30 PM  
Max Marks. 60

S-2019-2864

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**N.B. :**

- 1) All questions are **COMPULSORY**.
  - 2) Figures to the right indicate **FULL** marks.
  - 3) Assume suitable data, if necessary.
  - 4) Draw neat labeled diagrams **WHEREVER** necessary.
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**Q.1** Explain chip and HF resistance. **(10)**

**OR**

**Q.1** With neat diagram explain surface mounted inductor. **(10)**

**Q.2** Explain with neat diagram RF generator. **(10)**

**OR**

**Q.2** Explain observation and accuracy of  $OC_{TS}$ . **(10)**

**Q.3** Explain series-shunt peak amplifier. **(10)**

**OR**

**Q.3** What is two-port and explain its Enhancement techniques. **(10)**

**Q.4** LAN topologies with low noise amplifier design. **(10)**

**OR**

**Q.4** Write short note on:  
i) Noise Figure  
ii) Shot Noise **(10)**

**Q.5** Describe function and startup module of crystal oscillators. **(10)**

**OR**

**Q.5** Differentiate with common Emitter and common Gate. **(10)**

**Q.6** Characteristic of mixer with balanced mixer. **(10)**

**OR**

**Q.6** Explain single ended FET mixer. **(10)**

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