

B. TECH. SEM -VII (E & TC ENGG.) (2014 COURSE) (CBCS) :
WINTER - 2017
SUBJECT: RADIO FREQUENCY ENGINEERING

Day: **Friday**
Date: **19/01/2018**

Time: **02.30 PM TO 05.30 PM**
Max Marks. **60**

W-2017-2339

N.B. :

- 1) All questions are **COMPULSORY**.
- 2) Figures to the right indicate **FULL** marks.
- 3) Assume suitable data, if necessary.

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- Q.1** a) Explain HF Inductor? **(05)**
 b) What is a chip component, Explain chip Resistors? **(05)**

OR

- a) What is HF Resistors? **(05)**
 b) Differentiate chip and HF. **(05)**

- Q.2** Explain open circuit time constant method in detail. **(10)**

OR

 With neat diagram explain Spectrum analyzer and working in detail. **(10)**

- Q.3** a) Explain series peaked Amplifier. **(05)**
 b) Explain shunt series peak amplifier. **(05)**

OR

 Explain tuned amplifier with single tuned load. **(10)**

- Q.4** a) Write short notes on MOSFET. **(05)**
 b) Write short notes on LAN Topologies. **(05)**

OR

- a) Write short notes on Thermal Noise **(05)**
 b) Write short notes on Shot noise. **(05)**

- Q.5** a) Explain RF Crystal oscillations. **(05)**
 b) Explain RF colpitts oscillations. **(05)**

OR

 Describe different modal of oscillators and its working in detail. **(10)**

- Q.6** Explain mixer fundamental with neat diagram.(**ANY TWO**) **(10)**

OR

 Write shorts notes on :

- a) Single ended diode mixer. **(05)**
 b) Single ended FET mixer. **(05)**