B. Tech. Sem -VII (E & TC Engg.) (2014 COURSE) (CBCS) : WINTER - 2018

SUBJECT: RADIO FREQUENCY ENGINEERING

Day: Friday
Date: 30/11/2018

Time: 02.30 PM TO 05.30 PM
Max Marks. 60

W-2018-2599

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.

Q.1 What is chip components? Explain chip and HF capacitors. **(10)**

OR

Q.1 Differentiate HF and chip resistors with neat diagram. **(10)**

Q.2 With neat diagram explain Vector Network analyzer? **(10)**

OR

Q.2 Explain with neat diagram short circuit time constant method. **(10)**

Q.3 Design common source amplifier with single tuned load. **(10)**

OR

Q.3 Describe different Bandwidth enhancement techniques. **(10)**

Q.4 Noise optimization with power. **(10)**

OR

Q.4 What are the noise parameters explain MOSFET. **(10)**

Q.5 What is RF oscillator explain with common gate FET. **(10)**

OR

Q.5 Describe function and startup module of colpitts oscillator. **(10)**

Q.6 Explain mixer fundamental with single ended diode mixer. **(10)**

OR

Q.6 What is RF mixer explain image reject mixer. **(10)**

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