

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

**SUBJECT : SOFTWARE DEFINED RADIOS**

Day : Thursday  
Date : 15/11/2018

**W-2018-2680**

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

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**N. B. :**

- 1) All questions are **COMPULSORY**.
  - 2) Figures to the right indicate **FULL** marks.
  - 3) Draw neat and labeled diagram **WHEREVER** necessary.
  - 4) Assume suitable data, if necessary.
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**Q. 1** What is software defined radio? Give its applications. **(10)**

**OR**

Explain an ideal software defined radio architecture. **(10)**

**Q. 2** What are the transmitter and receiver requirements of 3G RF devices? **(10)**

**OR**

Explain ADC and DAC noise budget for SDR devices. **(10)**

**Q. 3** Explain the power requirements of SDR hardware components. **(10)**

**OR**

Write a note on: "Chameleon Reconfigurable Communication Processor". **(10)**

**Q. 4** Write down software standards for software radio. **(10)**

**OR**

What is major software architectural choices for software defined radio? **(10)**

**Q. 5** What are the principles of smart antenna system? **(10)**

**OR**

Explain smart antenna architecture. **(10)**

**Q. 6** Explain software radio system design. **(10)**

**OR**

What are the application potentials of low cost experimental software radio platform? **(10)**

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