B. Tech. Sem -VIII (E & TC Engg.) (2014 COURSE) (CBCS) : SUMMER - 2019

SUBJECT : SOFTWARE DEFINED RADIOS

Day : Tuesday
Date : 28/05/2019

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

S-2019-2945

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.

Q. 1 Explain an ideal software defined radio architecture. **(10)**

OR

Explain software defined radio with the help of block diagrams. **(10)**

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

OR

Explain cascading digital converters and digital frequency converters. **(10)**

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

OR

Write a short note on "Adaptive Computing Machine FPGA" **(10)**

Q. 4 Explain hardware specific software architecture of SDR. **(10)**

OR

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

Q. 5 Explain SDR with examples, framework, platform and 3G SDR test bed? **(10)**

OR

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

Q. 6 Write down experimental requirements for software radio platform. **(10)**

OR

Explain low level implementation details of software radio platform. **(10)**

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