

BACHELOR OF TECHNOLOGY (C.B.C.S.) (2014 COURSE)
B.Tech.Sem - VIII E & TC :SUMMER- 2022
SUBJECT : SOFTWARE DEFINED RADIOS

Day : Monday
Date : 20-06-2022

S-13377-2022

Time : 02:30 PM-05:30 PM
Max. Marks : 60

N.B.

- 1) All questions are **COMPULSORY**.
 - 2) Figures to the **RIGHT** indicate **FULL** marks.
 - 3) Use of non-programmable calculator is **allowed**.
 - 4) Assume suitable data **WHEREVER** necessary.
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Q.1 Explain software radio architecture and applications also explain traditional hardware radio architecture. **(10)**

OR

Q.1 Draw and explain basic block diagram of software defined radio. **(10)**

Q.2 What are 3G RF performance requirements? **(10)**

OR

Q.2 Explain cascading digital converters and digital frequency converters. **(10)**

Q.3 Explain DSP compilers and reconfigurable processors for signal processing. **(10)**

OR

Q.3 Write a short note on 'Adaptive computing machine FPGA.' **(10)**

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

OR

Q.4 Explain major software architectural choices for SDR. **(10)**

Q.5 What are the principles of Smart Antenna System? **(10)**

OR

Q.5 Explain Smart Antenna Architecture. **(10)**

Q.6 What are the application potentials of low cost experimental software radio platform? **(10)**

OR

Q.6 Explain TMS 320 C 62 xx EVM Daughterboard interface and PIC interface. **(10)**
