Roll No. | | | | | | | | | | | | | Total No. of Pages : 01

Total No. of Questions : 8

M.Tech. ECE (Wireless Communication) (2018 Batch) (Sem.–2)

SOFTWARE DEFINED RADIOS & COGNITIVE RADIO

Subject Code : MTWC-PE4B-18

M.Code : 76075

Time : 3 Hrs. Max. Marks : 60

INSTRUCTIONS TO CANDIDATES :

1.Attempt any FIVE questions out of EIGHT questions.

2.Each question carries TWELVE marks.

1. Discuss in detail the evolution of architecture of Software-defined Radio (SDR).
2. Describe the software architecture of SDR with neat diagrams.
3. Describe in detail on top level component interfaces of SDR.
4. Explain any two techniques of spectrum sensing in cognitive radio environment.
5. Discuss the primary functions, components and design rules of cognitive radio.
6. Write short notes :
   a) CORBA
   b) Phased array antennas
   c) Spectrum Mobility
7. Elaborate the primary reasons that the military sector might embrace open architecture SDR. What common interests do the commercial and military sectors share in the development of open- architecture SDR? How can the academic community support these common interests?
8. a) Summarize various steps involved in the transmission of the signal in SDR.
   b) How environment awareness is acquired in cognitive radio?

NOTE : Disclosure of Identity by writing Mobile No. or Making of passing request on any page of Answer Sheet will lead to UMC against the Student.