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Question Paper Code:U2203

M.E. DEGREE EXAMINATION, APRIL 2024

Second Semester

Communication Systems

21PCM203- COGNITIVE RATIO

(Regulations 2021)

Duration: Three hours

Maximum: 100 Marks

Answer ALL Questions

PART - A (5 x 20 = 100 Marks)

1. (a) Enumerate and discuss the evolution of SDR. With neat block diagram, explain the functional model of Software defined radio architecture. CO1- U (20)
Or
(b) Explain each component and its functionality of xG network architecture with neat diagram CO1- U (20)
2. (a) Compute Radio Identification Sensing Techniques and how the techniques are Employed Multiple Antennas design. CO2- App (20)
Or
(b) Design the Spectrum Sensing techniques for Cognitive Multi-Radio Networks and Spectrum Sensing for Cognitive OFDMA Systems. CO2- App (20)
3. (a) Explain the Role of Cognitive Radio Networks in Fifth-Generation Communication. CO1- U (20)
Or
(b) Explain the application of Deep Learning techniques in Spectrum Management. CO1- U (20)
4. (a) Compare the various open issues in dynamic spectrum access and centralized dynamic spectrum access of cognitive radio and analyze the both spectrum access. CO4- Ana (20)
Or

- (b) Compare the cooperative and non-cooperative approaches for different spectrum access of cognitive radio. CO4- Ana (20)
5. (a) Describe the Trusted Association and Routing in Spectrum Management techniques. CO1- U (20)
- Or
- (b) Elaborate the Mobility Management of Heterogeneous Wireless Networks. CO1- U (20)