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Question Paper Code: 59420

B.E. / B.Tech. DEGREE EXAMINATION, NOV 2019

Elective

Electronics and Communication Engineering

15UEC920- ADVANCED TRENDS IN TELECOMMUNICATION

(Regulation 2015)

Duration: Three hours

Maximum: 100 Marks

Answer ALL Questions

PART - A (5 x 20 = 100 Marks)

1. (a) (i) Explain the origins of Green Communication. CO1- U (10)
(ii) What are the requirements of future networks. CO1- U (10)
Or
- (b) What are the five fundamental ways to reduce energy consumption in communication networks? CO1- U (20)
2. (a) Describe the evolution of Software Defined Radio. CO2-U (20)
Or
- (b) (i) Explain the regulatory concepts of software defined radio. CO2- U (10)
(ii) What are the design approaches of software defined radio. CO2- U (10)
3. (a) (i) Explain the tasks involved in Spectrum Management in Cognitive Radio Networks. CO3- U (10)
(ii) Describe Transmitter detection techniques in Cognitive Radio Networks. CO3- U (10)
Or
- (b) Explain the cognitive cycle with necessary diagrams. CO3-U (20)

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| 4. | (a) | Explain the various Communication protocols used in IoT. | CO4- U | (20) |
| | | Or | | |
| | (b) | (i) Explain NFC technology in detail. | CO4- U | (10) |
| | | (ii) Explain the architecture of Zigbee and the its main applications. | CO4- U | (10) |
| 5. | (a) | (i) Explain the steps involved in Bio-signal Transmission and Processing with a neat block diagram. | CO5- U | (10) |
| | | (ii) Explain the basics of wireless communication system. | CO5- U | (10) |
| | | Or | | |
| | (b) | Explain patient monitoring system in hospital. | CO5- U | (20) |
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