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Question Paper Code: 52204

M.E. DEGREE EXAMINATION, NOV 2016

Elective

Communication Systems

15PCM525 - GREEN RADIO NETWORKS

(Regulation 2015)

Duration: Three hours

Maximum: 100 Marks

Answer ALL Questions

(PART A - 5x20=100)

1. (a) Explain the cooperative communications in OFDM and MIMO cellular relay networks. (20)

Or

- (b) Illustrate about the fundamental trade-off on the design of green radio. (20)

2. (a) Describe the need of cooperative communications in 3GPP LTE-Advanced. (20)

Or

- (b) Explain the concept of coordinated multipoint transmission in LTE-Advanced and partial information relaying. (20)

- 3.(a) Illustrate about distributed space-time block codes. (20)

Or

- (b) Explain about network coded operations, physical layer network coding, scheduling and resource allocation. (20)

4. (a) List and exemplify the power management for base stations in smart grid environment. (20)

Or

(b) Illustrate about the base station power management in smart grid. (20)

5. (a) Explain how much energy is needed to run a wireless network. (20)

Or

(b) Illustrate about energy-efficient relaying for cooperative cellular wireless networks. (20)
