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Question Paper Code: 52203

M.E. DEGREE EXAMINATION, NOV 2016

Elective

Communication Systems

15PCM523 - ULTRA WIDE BAND COMMUNICATION

(Regulation 2015)

Duration: Three hours

Maximum: 100 Marks

Answer ALL Questions

PART A - (5 x 20 = 100 Marks)

1. (a) Explain in detail about I-UWB system model and MC-UWB system model. (20)

Or

(b) (i) Discuss about the Regulatory, legal and other controversial issues in UWB. (10)

(ii) List out the applications of UWB systems. (10)

2. (a) With neat sketch, explain the working principle of I-UWB signal generators. (20)

Or

(b) Write short notes on: (i) UWB Modulators (ii) Spectral encoded UWB communication systems. (20)

3. (a) List and exemplify about I-UWB Radio receivers. (20)

Or

(b) Discuss in detail about the synchronization and timing issues in UWB receivers. (20)

4. (a) Give a case study and discuss on improving range of UWB using RAKE receivers. (20)

Or

(b) Briefly discuss about the overview of UWB Simulation techniques. (20)

5. (a) Explain the aggregate of UWB PDF Bernoulli and Poisson models. (20)

Or

(b) Discuss the basic properties and design principles of UWB antennas. (20)
