

Ph.D. PROGRAMME IN COMPUTER SCIENCE

Term-End Examination

00064

December 2014

RCSE-020 : EMERGING TRENDS IN NETWORKS

Time : 3 hours

Maximum Marks : 100

*Note : Attempt any **five** questions. All questions carry equal marks.*

1. Discuss the characteristics and infrastructure of Ad-hoc Networks. Explain how they can be used in disaster management. 20
2. Explain how Semantic web is used in 'Search Engines Development' and Web Mining. 20
3. What are the different layers of cloud computing ? How does cloud computing provide On-Demand functionality ? 20
4. Define Ubiquitous Computing. What are the challenges in the implementation of ubiquitous computing ? Also discuss some future applications of ubiquitous computing. 20

5. Differentiate between ATM and Frame Relay Architecture. Discuss the layers in each architecture. Also compare 'Routing Mechanisms' and 'Congestion Control Methods' used in both ATM and Frame Relay. 20
6. Explain the basic GSM system architecture. Discuss the concept of frequency reuse, co-channel interference, 'Hands off' and 'trunking efficiency'. 20
7. Differentiate between the following : 20
- (a) Sensor Networks and Mobile Networks
 - (b) Proactive and Reactive Routing Protocols
 - (c) OSI and TCP/IP Architecture
 - (d) Vehicular Ad-hoc Network and Ad-hoc Network
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