

**BIRLA INSTITUTE OF TECHNOLOGY, MESRA, RANCHI
(END SEMESTER EXAMINATION)**

**CLASS: MTECH
BRANCH: ECE**

**SEMESTER : I
SESSION : MO/18**

SUBJECT: EC510 WIRELESS COMMUNICATION AND NETWORKS

TIME: 03:00 HRS.

FULL MARKS: 50

INSTRUCTIONS:

1. The question paper contains 5 questions each of 10 marks and total 50 marks.
 2. Attempt all questions.
 3. The missing data, if any, may be assumed suitably.
 4. Before attempting the question paper, be sure that you have got the correct question paper.
 5. Tables/Data hand book/Graph paper etc. to be supplied to the candidates in the examination hall.
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- Q.1(a) Describe the format of an IPv6 datagram in detail. Explain the functionality of extension header "Fragmentation". [3+2]
- Q.1(b) Explain the responsibility of "Network Agent" in Snooping TCP. Compare Snooping TCP and Indirect TCP. [3+2]
- Q.2(a) Describe Middleware protocol group of IEEE802.15.1. Discuss responsibilities of "Host Controller Interface Layer" and "Service Discovery Protocol Layer" [2+3]
- Q.2(b) Describe BSS and ESS configuration of IEEE802.11. Discuss the advantages and limitations of Infrared technology used in IEEE 802.11. [3+2]
- Q.3(a) Define 'contention free Multiple accesses. Explain FDMA in detail and compare it with TDMA. [1+4]
- Q.3(b) Discuss ALOHA scheme in detail. Big data packets are not good for WLAN environment, Justify this statement. [3+2]
- Q.4(a) Define smart antenna. Explain MIMO-OFDM system with suitable block diagram. [2+3]
- Q.4(b) Discuss Cognitive Radio Cycle. Explain Multicarrier modulation in detail with suitable diagram. [2+3]
- Q.5(a) Describe RFID technology. Discuss working of the Paging system. [2+3]
- Q.5(b) Discuss different generations and standards in cellular communication system [5]

*******30.11.18*****M**