

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

**CLASS: BE
BRANCH: ECE**

**SEMESTER : VII
SESSION : MO/19**

SUBJECT: MEC2137 WIRELESS NETWORKS

TIME:3:00 HOURS

FULL MARKS: 60

INSTRUCTIONS:

1. The question paper contains 7 questions each of 12 marks and total 84 marks.
 2. Candidates may attempt any 5 questions maximum of 60 marks.
 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) What is care of address? Discuss various types of care of address used in Mobile IP. [2]
- Q.1(b) Compare Home Agent and Foreign agent on the basis of their respective responsibilities. What is agent solicitation? How is it different from Agent advertisement? [4]
- Q.1(c) With a suitable diagram, explain the process of node registration with Foreign Agent. Present and explain datagram packet used for registration request and registration reply respectively. [6]
- Q.2(a) What is fragmentation? Discuss its requirement and process to achieve for a network. [2]
- Q.2(b) Explain IPv4-IPv6 Transition strategy 'Tunneling'. Compare it with Dual stack. [4]
- Q.2(c) Explain IPv6 user datagram packet. Discuss Extension headers used in IPv6. [6]
- Q.3(a) Discuss Congestion strategies used in TCP. [2]
- Q.3(b) Explain working of Mobile TCP. Compare Any casting and Multicasting. [4]
- Q.3(c) Discuss the process of Handover in I-TCP. Compare I-TCP, Mobile TCP and Snooping TCP [6]
- Q.4(a) Discuss type of devices used in IEEE 802.15.4. [2]
- Q.4(b) Explain UHF Narrowband Technology used in IEEE 802.11. What are its advantages and disadvantages? [4]
- Q.4(c) For IEEE 802.11, discuss the components of Data link Layer and their respective responsibilities. Compare various MAC access schemes used in IEEE 802.11. [6]
- Q.5(a) Explain various topologies used in IEEE 802.15.4. [2]
- Q.5(b) Discuss the architecture of GSM. [4]
- Q.5(c) With the help of suitable diagram explain various device states in IEEE 802.15.1. Categorize Bluetooth devices on the basis of trust level. Discuss the responsibility of Service Discovery protocol for IEEE 802.15.1 [6]
- Q.6(a) Compare Terminal, Mobile Terminal, Wireless Terminal and Wireless Mobile Terminal for WATM. [2]
- Q.6(b) Discuss Generic Reference Model of WATM. [4]
- Q.6(c) Explain Minimum 6 possible scenarios in WATM [6]
- Q.7(a) Compare various link types used in IEEE 802.15.1. [2]
- Q.7(b) Explain Generic MAC frame format for IEEE 802.15.4. [4]
- Q.7(c) Compare proposals for IEEE 802.15.3a. [6]

:02/12/2019:E