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Total No. of Printed Pages: [01]

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M. Tech. (CSE) (Semester –1st)
ADVANCED WIRELESS & MOBILE NETWORKS
SUBJECT CODE: MCSES1123
Paper ID: [23190209]

Time: 03 Hours

Maximum Marks: 60

Instruction for candidates:

1. Section A is Compulsory.
2. Attempt any THREE questions from Section B.
3. Attempt any TWO questions from Section C.

Section – A

(4 marks each)

- Q1. What is the advantage of frequency reuse principle in cellular networks? Illustrate with an example.
- Q2. What is hidden terminal problem and how does IEEE 802.11 solve it?
- Q3. How network layer is different in WLAN and wireless sensor networks? Explain.
- Q4.** List the features of Bluetooth and ZigBee technologies.

Section – B

(8 marks each)

- Q5. Discuss various spread spectrum techniques used in wireless networks. Give an example of each technique.
- Q6. What are different performance metrics used to decide handoff in cellular networks? Explain various strategies to determine the instant of handoff.
- Q7. Illustrate media independence paradigm in IEEE 802.21 communication model with an example.
- Q8. Discuss the architecture of vehicular ad-hoc network and its components. Also, explain different types of communication enabled by such networks.

Section – C

(10 marks each)

- Q9. Discuss the evolution of cellular networks from 1G to 5G in detail.
- Q10. Describe DCF and PCF access mechanisms in detail at MAC layer of IEEE 802.11 standard.
- Q11. Write Short notes on following: a) IEEE 802.11i b) Mobile IPv4