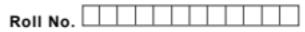


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Total No. of Pages : 02

Total No. of Questions : 18

B.Tech. (Electrical & Electronics)/(Electronics & Electrical) (Sem.-7) WIRELESS COMMUNICATION Subject Code : BTEEE-804F

M.Code : 71968

Time : 3 Hrs.

Max. Marks : 60

INSTRUCTIONS TO CANDIDATES :

- SECTION-A is COMPULSORY consisting of TEN questions carrying TWO marks each.
- SECTION-B contains FIVE questions carrying FIVE marks each and students have to attempt any FOUR questions.
- SECTION-C contains THREE questions carrying TEN marks each and students have to attempt any TWO questions.

SECTION-A

Write briefly :

- 1. Calculate channel capacity of TDMA in cell system.
- What is called shadowing?
- 3. What are the limitations of 1G cellular network?
- 4. Write the drawback of Bit-Error-rate-Driven diversity.
- 5. Compare the capacity of a fading and a non-fading channel for information.
- 6. What are the main transmission technologies for WLAN?
- 7. Discuss the fundamental concepts of all-IP networks.
- 8. What is the frequency of separation between uplink and downlink in AMPS and GSM?
- 9. List the benefits of cellular-WLAN integration architecture.
- 10. Draw the forward link structure in IS-95 CDMA.

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SECTION-B

- 11. Explain briefly the following terms used in telephony :
 - a) Busy hour calling rate
 - b) Unit call
- How does multipath fading is mitigated with the design of base station antennas? Explain.
- 13. Write short notes on support of mobility on the Internet.
- 14. A group of N stations share 100 Kbps slotted ALOHA channel. Each station output a 500 bits frame on an average of 5000ms even if previous one has not been sent. What is the required value of N?
- 15. Describe the functions of the MS and SIM. Why does GSM separate the MS and SIM?

SECTION-C

- 16. What signalling facilities are to be provided by subscriber's instrument in an automatic telephone exchange? Explain in detail. Also show how this is achieved by a schematic diagram?
- What is difference between multiplexing and multiple access techniques? Are FDM and TDM similar to corresponding FDMA/TDMA respectively? If not, why? Explain the relative advantages and disadvantages of FDM A and TDMA.
- Draw the IEEE 802.11 protocol architecture, name the main elements and describe their functions. Why is the PHY layer in IEEE 802.11 subdivided?

NOTE : Disclosure of Identity by writing Mobile No. or Making of passing request on any page of Answer Sheet will lead to UMC against the Student.

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