Total No. of Questions – [6] Total No. of Printed Pages: 2

G.R. No.	

DECEMBER 2021-ENDSEM EXAM

T. Y. B. TECH. (E&TC) (SEMESTER - I)

COURSE NAME: Wireless Communication and Networks

COURSE CODE: ETUA31184

(PATTERN 2018)

Time: [1Hr] [Max. Marks: 30]

(*) Instructions to candidates:

1) **Answer Q.1 OR Q.2, Q.3 OR Q.4, Q.5 OR Q.6.**
2) **Figures to the right indicate full marks.**
3) **Use of scientific calculator is allowed**
4) **Use suitable data where ever required**

Q.1 a Illustrate and interpret flat and frequency selective fading with the help of autocorrelation and PSD plot. [4]

Q.1 b How OFDM is implemented. illustrate with diagram. [6]

OR

Q2 a How to mitigate the impact of subcarrier fading. What the different solutions used for the same. [4]

Q2 b What is the difference between overlap and non-overlap sub-channels used in OFDM for multicarrier communication? What is the advantage of overlap channels and how it is achieved. illustrate with suitable example. [6]

Q.3 a Explain the detail the performance of difference switching techniques based on error probability, data rate and number of user can be served. [4]

Q.3 b Compare and contrast OSI and TCP/IP stack. Explain What are the modification done in TCP/IP compared with OSI. Justify the purpose in doing so. [6]

OR

Q.4 a What is necessity of defining OSI model? How the purpose get served in doing so? [4]

Q.4 b	Consider one communication application example and illustrate how each layer of OSI model is involved in communicating the message from transmitter side to the receiver side.	[6]
Q.5 a	Explain how mobile to mobile communication link get established and further communication takes place.	[4]
Q.5 b	Explain the architecture of Wireless Application Protocol and illustrate the role of each layer/section.	[6]

OR

Q.6 a	Explain how Wireless Local Loop works. With suitable example explain how communication takes place.	[4]
Q.6 b	What is the need of 802 IEEE standards. Explain WI-FI standard 802.11 with the role of each layer/section in establishment of communication link and transfer of data	[6]

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