

Total No. of Questions : 8]

SEAT No. :

P-621

[Total No. Of Pages : 2

[6004]-573

B.E.(Information Technology)

WIRELESS COMMUNICATIONS

(414445 D) (2019 Pattern) (Semester-VII) (Elective IV)

Time : 2½ Hours]

[Max. Marks : 70

Instructions to the candidates :

- 1) Answer Q1 or Q2, Q3 or Q4, Q5 or Q6, Q7 or Q8.
- 2) Neat labelled diagrams must be drawn wherever necessary.
- 3) Figures to the right side indicate marks.
- 4) Assume suitable data, if necessary.

Q1) a) What is OFDM technique? Also, explain OFDMA transmitter and receiver. [9]

b) Explain the Principal of TDMA. What are different features of TDMA? [9]

OR

Q2) a) What is SDMA? Explain in detail Space Division Multiple Access Technique. [9]

b) How Code Division Multiple Access Technique is implanted while accessing a channel for multiple users? Support your theory with example. [9]

Q3) a) What is WAP? Explain Wireless Application Protocol model architecture in details. [9]

b) Explain SigFox protocol in details. [8]

OR

Q4) a) What is NFC? What are the different characteristics of NFC? [9]

b) What is Li-Fi? Explain the working principle of Li-Fi technology. [8]

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Q5) a) Explain Bluetooth Security Architecture in detail. [9]

b) What is security? What are the different security issues in 1G, 2G, 3G and 4G? [9]

OR

Q6) a) Explain in details Visible Light Communication, Also, explain its applications. [9]

b) What are Wireless Security tools? Explain URH and Kismet in details. [9]

Q7) a) What is quantum technology? Explain quantum Technology for a 5G/6G wireless network? [9]

b) State and explain various applications of wireless technology. [8]

OR

Q8) a) Explain how 5G network works along with its benefits. [9]

b) Explain Simultaneous Transmission and Reflection (STAR) for 360° coverage in details [8]

