

Roll No:-----

Enrollment No-----

JAMIA HAMDARD
Department of Computer Science & Engineering
School of Engineering Sciences & Technology
New Delhi-110062

Odd Semester Examination 2024

Subject Name: Introduction to wireless communication PE-1
Subject Code: BCA/BSC- PE311

Time: 2.5 Hours
Max. Marks: 60

Section A
Attempt all questions:

Marking Scheme: 20 x 1 marks = 20 Marks. (CO*:1 ,BL:1,2,4 & 5)

FILL IN THE BLANKS (10*1marks=10 marks)

- Q1. SIM abbreviated as-----
- Q2. -----Shape of cellular region for maximum radio coverage.
- Q3. Mobile communication network is also called as -----
- Q4. -----is the outdoor propagation model
- Q5. A service provider who charge for using a mobile communication system is called-----
- Q6 When a signal propagates from a transmitter to a receiver and is forced to follow different path is called -----
- Q7 A----- is a basic geographical unit of cellular network
- Q8 Intermix the other signal with original signal is known as -----
- Q9. Mobile phone IMEI number stands for-----
- Q10. Mobile traffic intensity is expresses in -----

SELECT THE APPROPRIATE OPTION (5*1marks=5 marks)

- Q11. Interference in frequency band may lead to
 - c) Blocked call b) cross talk c) missed call d) all of them
- Q12. The techniques used to improve the capacity of cellular system are
 - d) Splitting b) sectoring c) both a&b d) none of them
- Q13. Who firstly invented mobile communication?
 - d) Motorola b) LG c) Samsung d) none of them
- Q14. Do mobile units when travels through a path cross different cell
 - a) Yes b) no c) may be d) may not be
- Q15. Reflection of wave generally occurs from a
 - d) Walls b) hills c) object d) all of them

STATE WHETHER THE STATEMENT IS TRUE OR FALSE (5*1marks=5 marks)

- Q16. Guard band is the small unused bandwidth between the frequency channels
- Q17. Edwin Armstrong introduced frequency modulation.
- Q18 Cell splitting reduces transmission power
- Q19 Carrier frequency of a TV remote control is in the range of infrared.
- Q20. Authentication is the process to verify the subscriber SIM

SECTION- B
ATTEMPT ANY FOUR OUT OF SIX
Marking Scheme: (4*5 marks=20 marks)

Q.No.	Questions	Marks	CO	BL
Q1	Discuss future trend of wireless communication in brief.	5	CO2	BL1
Q2	What do you understand about the term wireless mobile communication? Describe its various components.	5	CO5	BL2
Q3	Differentiate between the term reflection and diffraction.	5	CO3	BL4
Q4	Discuss in details about Bluetooth technology.	5	CO4	BL2
Q5	Write down the salient features of outdoor and indoor propagation model.	5	CO5	BL3
Q6	Discuss in details about the technology features difference 3G,4G and 5G .	5	CO1	BL5

SECTION- C
ATTEMPT ANY TWO OUT OF FOUR
Marking Scheme: (2*10 marks=20 marks)

S.No	Questions	Marks	CO	BL
Q1	Discuss briefly various types of payload associated with satellite communication.	10	CO2	BL2
Q2	Explain in details about different types of Multiple Access Techniques.	10	CO3	BL4
Q3	How mobile IP works? Describe it with the help of packet delivery.	10	CO5	BL2
Q4	Explain an overview with suitable Block diagram of a mobile communication system.	10	CO1	BL3