COMPUTER NETWORKS CASE STUDY ASSIGNMENT:
EXPLORING FIELD TEST MODE ON SMARTPHONES

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B. TECH COMPUTER SCIENCE AND ENGINEERING (SEC-C 3RD YEAR, 5TH SEMESTER)
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IMEI (International Mobile Equipment Identity):

What it is: A unique 15-digit identifier for mobile devices, especially phones.

Importance: It is used as an identifier for a device on mobile network. It assists in tracking devices; it is useful in blocking stolen phones, and manages connections in cellular networks.

MAC (Media Access Control) Address:

What it is: It is a unique hardware identifier assigned to a network interface card (NIC), which is commonly used in local area networks.

Importance: It guarantees that a device is uniquely identified in the local network, such as Wi-Fi for communication purposes and for security purposes. It's useful in allowing or restricting access to the network given to specific devices.

IP (Internet Protocol) Address:

What Is It: A numerical label assigned to each device connected to the network using an IP protocol, like internet.

Significance: It enables devices to discover and connect to other devices over networks like the internet. IP addresses are necessary to send data correctly.

SSID (Service Set Identifier):

What It Is: It refers to a name for a Wi-Fi network whereby a user can identify and connect to an exact wireless network.

Significance: It distinguishes the available networks that will assist the users in ensuring that their connection is secure to a specific Wi-Fi network.

Subnet Mask:

What Is It: A numerical number that divides an IP address into a network and a host portion.

Why Is It Important: It identifies how much of the portion is the network and how much is identifying a host in the network. That segmentation is required for managing and routing traffic in subnetworks.

Gateway :

Significance: It acts as a doorway to the internet, enabling devices in the local network to access other networks.

DNS (Domain Name System) Address:

What Is It: This is the address of a server that translates domain names - for example google.com - into IP addresses.

Importance: It is therefore important because it enables internet web browsing. It translates human-readable domain

names into machine-readable IP addresses, making accessing websites and online resources relatively easy.

Port Number:

What It Is: This is a number that is assigned to specific processes or services within a device, thereby allowing data to be directed to the right application.

It enables communication targeting to be done within a network such that the right application or service on the device receives the data.

Screenshot:

FTM Dashboard

Carrier:	AirTel
Capabilities:	5G NSA
TAC:	50491
Network PLMN:	404 94
Phone Number:	+919362751115

LTE

Band	1
Bandwidth	10 MHz
PCI	11
RSRP	-101 dBm
RSRQ	-12 dB
SINR0	0.8 dB
SINR1	0.2 dB

Dashboard