

Seat no:- IT6A068

Semester :- VI

Subject :- Wireless Networks

Date :- 9th June, 2021

Exam :- June, 2021

Q.3 A) Solve any Two

Q.iii) Explain virtual Network and list different protocols?

Ans A Virtual private network or VPN is a service that creates a safe, encrypted online connection. Internet users may use a VPN to give themselves more privacy and anonymity online or circumvent geographic-based blocking and censorship. VPN essentially extend a private network across a public network, which should allow a user to securely send and receive data across the internet.

Working :- At its most basic level VPN tunneling creates a point-to-point connection that cannot be accessed by unauthorized person. To actually create the tunnel, a tunneling protocol is used over existing networks. Different VPNs use different tunneling protocols.

Different Protocols in VPN are :-

VI_WN_IT6A068_Q3

Page

1/3

- 1) Internet Protocol Security (IPSec)
- 2) Layer 2 Tunneling Protocol
- 3) Point-to-Point Tunneling Protocol
- 4) SSL and TLS
- 5) OpenVPN
- 6) Secure Shell

ii) Compare Mi-Fi and Li-Fi?

Ans Mi-Fi is a brand name used to describe a wireless router that acts as mobile Wi-Fi-hotspot. In a Mi-Fi device can be connected to a cellular network and provide internet access for up to ten devices.

Li-Fi - It is a wireless communication technology which utilizes light to transmit data and position between devices. The term was first introduced by Harald Haas. In technical terms Li-Fi is a light communication system that is capable of transmitting data at high speeds over the visible light, Ultraviolet and infrared spectrum. In its present state only LED lamps can be used for the transmission of visible light.

VI_WN_IT6A068_Q3

Page

2/3

Q3) B) Solve any One

i) Explain in detail WMAN 802.16 WiMax technology

Ans i) WiMAX is Acronym for worldwide interoperability for Microwave access

1) It is Based on Wireless MAN technology

2) A Wireless technology optimized for the delivery of IP Centric Services over a Wide Area

3) It is a Scalable Wireless Platform for constructing alternative and complementary broadband Networks

4) It is a Certification that denotes interoperability of Equipment built to the IEEE 802.16 or compatible working group develops Standards that address two types of Usage model -

a) A fixed usage model (IEEE 802.16-2004)

b) A portable usage model (IEEE 802.16e)

5) WiMAX is such an easy term that people tend to use it for the 802.16 standards and technology themselves, although strictly it applies only to Systems that meet specific conformance criteria laid by the WiMAX Forum

6) It can be used to connect 802.11 hot spots to the Internet, provide campus connectivity.

VI_WN_IT6A068_Q3

Ravi

3 / 3