

**WORLD MISSION HIGH SCHOOL**  
**LEVEL 5 NET**  
**SECTION A: ATTEMPT ALL QUESTIONS**

**/55Marks**

- 01.** Select the best answer for the following questions **[2Marks]**  
What is WPA?  
A) wired protected access  
B) wi-fi protected access  
C) wired process access  
D) wi-fi process access
- 02.** The bandwidth and power consumption of WIFI is high compared to Bluetooth is it true? **[2Marks]**  
A) True  
B) False
- 03.** Write in full the following abbreviation **[4Marks]**  
A) VESA  
B) ANSI  
C) ITU  
D) USSD
- 04.** Fill the following statement **[2Marks]**  
**Access Point is a stand-alone device that allows wireless devices (such as laptop computers) to connect to and communicate with a ..... computer network.**
- 05.** Explain three Safety equipment that can be used during wireless instillation? **[3Marks]**
- 06.** What are four( 4) types of wireless communication **[2marks]**
- 07.** What are testing ways that can be used to test device performance? **[4Marks]**
- 08.** Explain basic two types of antennas **[4Marks]**
- 09.** Which criteria would you consider while selecting the best switch? **[4Marks]**
- 10.** Define Gantt chart and Outline its Parts. **[4Marks]**
- 11.** During wireless installation what are advantages of Power over Ethernet? **[2Marks]**

12. What is the difference between Ping and Traceroute? [2Marks]

13. Suppose you are hired as network technician to install wireless network, identify hardware components required to install wireless network? [3Marks]

14. USB Modem is connected to a computer match the following data LED status with their indicate meaning? [5Marks]

Answer	State	indicate
I.....	I. Off	<b>A.</b> The modem is connected to a 3G network and can send and receive data
II.....	II. Blinking Amber	<b>B.</b> The modem has detected a 3G network (UMTS, HSPA) and is ready to connect.
III.....	III. Solid Amber	<b>C.</b> The modem is connected to a 2G network and is able to send and receive data.
IV.....	IV. Blinking Blue	<b>D.</b> The modem has detected a 2G network (EDGE, GPRS, GSM) and is ready to connect.
V.....	V. Solid Blue	<b>E.</b> The modem is unable to detect 2G or 3G service

15. **A.** What is General Packet Radio Service (GPRS) [2Marks]

**B.** What are services that were extended in GPRS [5Marks]

16. What is A spectrum analyzer? [2Marks]

17. The SLA defines the level of service expected by your organization from a vendor. Demonstrate three options for structuring SLA [3Marks]

**SECTION B:** Choose Three (3) Questions in SECTION B /30Marks

18. Match the following security protocols with correct meaning [10Marks]

Answer	Security network	Meaning
I...	<b>I.</b> Authentication, Authorization and Accounting (AAA) and IP security	<b>A.</b> is a protocol that provides communication security between client/server applications that communicate with each other over the Internet. It enables

		privacy, integrity and protection for the data that is transmitted between different nodes on the Internet.
II....	<b>II.</b> Transport layer security (TLS)	<b>B.</b> is a system for tracking user activities on an IPbased network and controlling their access to network resources. AAA is often being implemented as a dedicated server
III....	<b>III.</b> Security protocols	<b>C.</b> is a sequence of operations that ensure protection of data. Used with a communications protocol, it provides secure delivery of data between two parties.
IV....	<b>IV.</b> Wired Equivalent Privacy	<b>D.</b> is the standard security technology for establishing an encrypted link between a web server and a browser. This link ensures that all data passed between the web server and browsers remain private and integral.
V....	<b>V.</b> Secure sockets layer (SSL)	<b>E.</b> is a security protocol, specified in the IEEE Wireless Fidelity (Wi-Fi) standard, 802.11b, that is designed to provide a wireless local area network (WLAN) with a level of security and privacy comparable to what is usually expected of a wired LAN.

19. **A.** Explain network topology?

[2Marks]

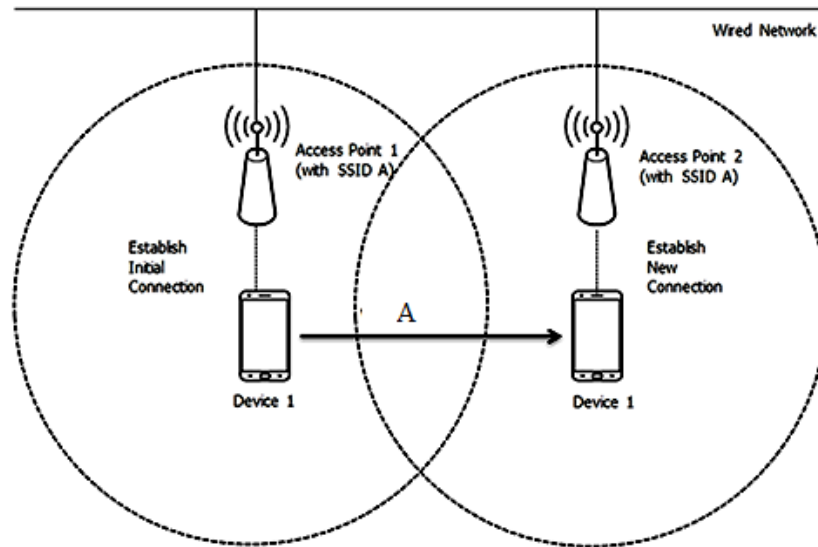
**B.** Explain with clear description Four(4) types of network topology

[8Marks]

20. Operators need the ability to fully monitor and manage the in-home WiFi network itself. what are WiFi challenges and systems tasks for those challenges ?

[10Marks]

21. Observe the following figure and explain the features of mobile network that is being represented by letter A [10Marks]



22. What are advantage and disadvantages of WIMAX [10Marks]

**SECTION C:**

/15Marks

23. **A.** Define HSPA and provide the factors that provide ability to obtain service may depend on? [5Marks]
- B.** provide and explain steps for installing and configuring HSPA USB Devices? [10Marks]
24. In ABC Business company located at kigali city has wireless router with 35 concurrent users employing chatting/messenger services, e-mail, social media, web browsing, and video streaming, as a result, an estimated bandwidth per user of 3.33 Mbit/s.
- A.** What is network bandwidth? [3Marks]
- B.** Bandwidth connections can be symmetrical or asymmetrical. What would happen if asymmetrical bandwidth connection is being used in network? [4Marks]
- C:** How many minimum bandwidth that company need to satisfy all users [8Marks]