**WORKSHEET 3-2**

TOPIC

3

**NETWORKS REVIEW**



**TIME TO COMPLETE: 45 MINUTES**

Please show your work, that way I know you’re able to replicate it on the exam.

***MAX MARKS: 27***

1. Explain why the speed of data transmission across a network can vary. [2]
2. Explain why compression of data is often necessary when transmitting across a network. [2]
3. Complete the following table [6]

|  |  |  |  |
| --- | --- | --- | --- |
|  | **Metal Conductor** | **Fiber Optics** | **Wireless** |
| **Speed** |  |  |  |
| **Reliability** |  |  |  |
| **Cost** |  |  |  |
| **Security** |  |  |  |

1. Explain how data is transmitted by packet switching. [2]
2. Outline the advantages and disadvantages of wireless networks. [2]
3. Describe the hardware and software components of a wireless network. [2]
4. Describe the characteristics of the following wireless networks: WIFI, WIMAX, LTE. [3]
5. What are 3G and 4G mobile networks? [1]
6. Describe encryption, authentication, and MAC address filtering. [3]
7. Evaluate the effectiveness of encryption, authentication, and MAC address filtering as they relate to wireless networking. [4]