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## Assignment 1: Home, Office, and Mobile Internet

### Section 1: Vocabulary Match

Match the words to their correct definitions.

| Word           | Definition   |
|----------------|--|
| 1. Fiber optic | a. A device that connects multiple devices to the internet wirelessly    |
| 2. Satellite   | b. A cable used to connect computers to the internet directly            |
| 3. Router      | c. Internet technology using light signals through glass cables          |
| 4. LAN cable   | d. Internet technology using signals from space                          |
| 5. WIFI7       | e. The latest wireless internet standard for fast speeds                 |
| 6. SIM / E-SIM | f. A small card or digital chip that connects devices to mobile networks |
| 7. Hotspot     | g. A device or feature that shares mobile internet with other devices    |
| 8. Radio wave  | h. The type of signal used by mobile internet                            |

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## Section 2: Reading Comprehension

Read the passage and answer the questions.

### Passage:

Internet access is available in many ways for homes, offices, and on the go. Home and office internet connections can offer up to 100Gb of data, using technologies like fiber optic and satellite. Fiber optic uses light signals through glass cables for very fast and stable internet. Satellite internet uses signals from space, making it available in remote areas. Equipment such as routers and LAN cables are needed. Routers send the internet signal wirelessly, while LAN cables connect devices directly. Modern routers support WIFI7, which uses both 2.4GHz and 5.0GHz frequencies for better speed and coverage.

Mobile phone internet and pocket WIFI (hotspot) provide internet access anywhere using radio waves. These use SIM or E-SIM technology and can connect tablets and other devices. Mobile internet has evolved through several generations:

- **1G (Analog, 1980):** No internet, only voice calls.
- **2G (EDGE, 1990):** 64 - 144 Kbps, basic internet.
- **3G (HSPA+, 2000):** 2 - 42 Mbps, faster browsing.
- **4G (LTE, 2010):** 100 Mbps - 1 Gbps, high-speed internet.
- **5G (NR, 2020):** 10 - 20 Gbps, ultra-fast speeds for many devices.

Mobile internet is convenient for travel and areas without fixed connections, but speed and coverage depend on the network and location.

### Multiple Choice Questions:

1. Which technology uses light signals through glass cables?  
a) Satellite      b) Fiber optic      c) WIFI7      d) SIM
2. What does a router do?  
a) Connects to satellites in space      b) Sends internet signals wirelessly to devices  
c) Provides only wired connections      d) Increases the length of LAN cables
3. What is a benefit of using WIFI7?  
a) Slower internet speeds      b) Stronger and wider signal range  
c) Only works with satellite internet      d) Needs no equipment
4. What is used to connect mobile devices to mobile internet?  
a) LAN cable      b) SIM or E-SIM      c) Fiber optic cable      d) Satellite dish
5. Which mobile internet generation offers the fastest speeds?  
a) 2G      b) 3G      c) 4G      d) 5G

### Section 3: True or False

Select **True** or **False** for each statement.

| Statement  | True                     | False                    |
|--|--------------------------|--------------------------|
| 1. Fiber optic internet is usually faster than satellite internet. | <input type="checkbox"/> | <input type="checkbox"/> |
| 2. LAN cables are used to connect devices wirelessly.              | <input type="checkbox"/> | <input type="checkbox"/> |
| 3. WIFI7 can use both 2.4GHz and 5.0GHz frequencies.               | <input type="checkbox"/> | <input type="checkbox"/> |
| 4. Satellite internet is only available in cities.                 | <input type="checkbox"/> | <input type="checkbox"/> |
| 5. Mobile internet uses radio waves to send data.                  | <input type="checkbox"/> | <input type="checkbox"/> |
| 6. 1G networks allowed people to browse the internet.              | <input type="checkbox"/> | <input type="checkbox"/> |
| 7. 5G offers higher speeds than 4G.                                | <input type="checkbox"/> | <input type="checkbox"/> |

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### Section 4: Fill in the Blanks

Complete the sentences with the correct words: **fiber optic, satellite, router, LAN cable, WIFI7, SIM, radio wave, 5G**

1. \_\_\_\_\_ internet uses light signals to deliver fast speeds.
  2. \_\_\_\_\_ internet is useful in places where cables cannot reach.
  3. A \_\_\_\_\_ sends the internet signal wirelessly to devices.
  4. \_\_\_\_\_ is the latest wireless internet standard.
  5. A \_\_\_\_\_ connects computers directly to the internet.
  6. Mobile internet uses a \_\_\_\_\_ or E-SIM to connect devices.
  7. The signal for mobile internet travels through \_\_\_\_\_.
  8. \_\_\_\_\_ is the fastest mobile internet technology today.
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**End of Worksheet**