

Part A: Reading (6 marks)

Wi-Fi achieved at 10,000 times lower power



Wi-fi is a technology that allows electronic devices to connect to a wireless LAN (WLAN) network. The upside of Wi-Fi is that **it**'s everywhere -- invisibly connecting laptops to printers, allowing smartphones to make calls or stream movies without cell service, and letting online gamers battle it out. However, the downside is that using Wi-Fi consumes a significant amount of energy.

Now, a team of University of Washington computer scientists and electrical engineers has demonstrated that it's possible to generate Wi-Fi transmissions using less power than conventional methods. **They** say that the new passive Wi-Fi system also consumes 1,000 times less power than existing energy-efficient wireless communication platforms. The technology has also been named one of the 10 breakthrough technologies of 2016 by MIT Technology Review. "**We** wanted to see if we could achieve Wi-Fi transmissions using almost no power at all," said an assistant professor of computer science and engineering.

The technology could enable entirely new types of communication that haven't been possible because energy demands have outstripped available power supplies. **It** could also simplify our data-intensive worlds.

Extracts from <https://www.sciencedaily.com/releases/2016/02/160223132732.htm> definition of Wi-Fi added

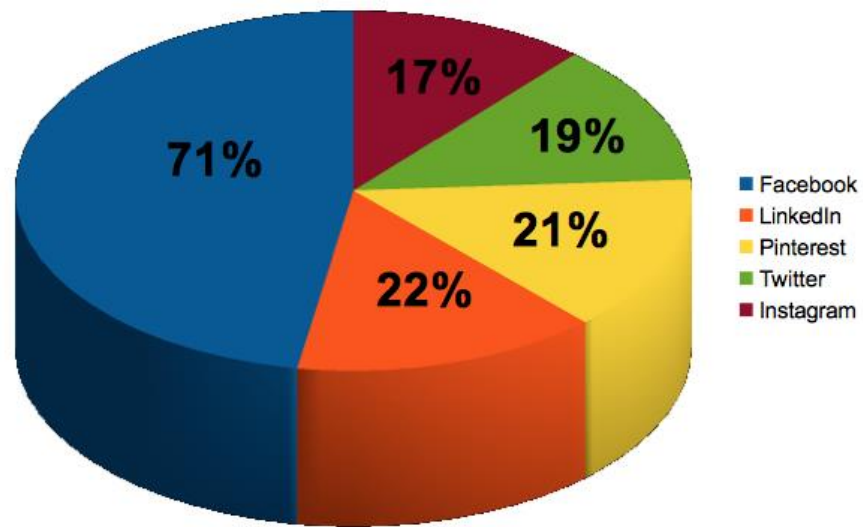
1 Say whether the following statements are true or false: (4 marks)

1. Wi-Fi consumed a lot of power from the devices. True False
2. The new passive Wi-Fi system consumes 1,000 megabits. True False
3. The new passive Wi-Fi is the best technological discovery in 2016. True False
4. It is possible that this new technology will improve communication. True False

2 Reference: What do the following words (in bold in the text) refer to: (2 marks)

- a) it (in para. 1)..... c) We (in para 2).....
- b) They (in para 2)..... d) It (in para 3).....

What are the most popular social media?



Use the information below to write the finding section of this questionnaire:

Questionnaire Results

200 IT students responded to this survey.

1. Other than your university materials, what do you mainly read?

a. Literature (novels, short stories and poetry)	100
b. news	20
c. comics	60
d. scientific articles	10
e. career-related articles	10

2. Do you prefer to

a. read printed materials	70
b. read online	120
c. read using e-books on my laptop or Kindle	10

3. On average, how much time do you spend reading these every week?

a. Less than two hours	30
b. Between 2-4 hours	70
c. Between 4-8 hours	90
d. More than 8 hours	10

4. Do you think the reading you do improved your language?

a. Yes, greatly.	160
b. Yes, to a certain extent.	40
c. No, not much or not at all.	0