Unit 8 · Keeping Data Safe

WORKSHEET

Full marks 31

Name _____ Class _____ Roll no. ____ Date _____ Marks _____ / 31

1 Key words [4]

Fill in the blanks with words from the box. Two words in the box are not needed. Each blank carries 0.5 mark.

availability	backup	confidentiality	data breach	integrity	malware	passkey	phishing	ransomware	worm

Keeping data secret, so that only the right people can see it, is called _____. Keeping it correct, so that nobody can change it without permission, is _____, and keeping it there when it is needed is _____. Any program made to do harm is _____; the kind that scrambles your files and demands money is _____. A message with a link to a copy of a real login page, made to collect your password and code, is _____. When thieves break into a website and steal its whole list of accounts at once, it is a _____. A copy of your data kept somewhere else, so that you can get it back, is a _____.

2 Kinds of malware [3]

Match each kind of malware in Column A with how it works in Column B. One item in Column B is not needed. Each carries 0.5 mark.

Column A		Column B
1. virus	☐	**a.** spreads by itself from computer to computer over a network
2. worm	☐	**b.** secretly reads your messages and records what you type
3. trojan	☐	**c.** keeps a copy of your files somewhere else
4. spyware	☐	**d.** scrambles your files and demands money to unscramble them
5. ransomware	☐	**e.** hides inside other files and copies itself into more of them when they are opened
6. adware	☐	**f.** pretends to be something useful, but does harm once installed
		g. floods the phone with ads and uses up data

3 Multiple choice [5]

Choose the correct option for each of the following questions.

i. A friend sends you a file called **class-photos.jpg.apk** in a chat group. What is it? [1]

a. a photo, because the name has .jpg in it
b. an app, because the name ends in .apk: installing it could install malware
c. a safe file, because a friend sent it
d. a video

ii. Why does installing updates protect a phone from malware? **[1]**

a. Updates delete all the apps.

b. Updates make the phone faster, so malware can't keep up.

c. Updates fix mistakes (holes) in the software that malware could use to get in.

d. Updates make the phone stop using the internet.

iii. Which of these is **not** a second step of two-step login? **[1]**

a. a code from an authenticator app

b. your fingerprint, checked by your own phone

c. a security key

d. a second password

iv. Which second step can a fake login page **not** trick you out of? **[1]**

a. a code sent by SMS

b. a code from an authenticator app

c. a password

d. a security key or a passkey, which checks the website's real address itself

v. Which backup plan survives a stolen phone, a house fire **and** ransomware on the family laptop? **[1]**

a. photos on the phone and on its memory card

b. photos on the phone and on the laptop

c. photos on the phone, the laptop, and a pen drive kept plugged into the laptop

d. photos on the phone, the laptop, and an online backup

4 Who owns the link? [4]

Write short answers to the following question.

For each address, write who owns the website, and whether it is really Lalupate Bank's (lalupatebank.com.np):

i. https://lalupatebank.com.np/loans
ii. https://online.lalupatebank.com.np/
iii. https://lalupatebank-online.com/login
iv. https://lalupatebank.com.np.bank-verify.org/kyc

5 Short answers [7]

Write short answers to the following questions.

a. A hospital's computers are hit by ransomware. The patients' records are not stolen and not changed, only scrambled. Explain which part of the CIA triad is lost, and why this is dangerous even though nothing was stolen. [2]

b. A shopkeeper in Dharan sells a phone charger for Rs 1,200. The customer shows a screen saying "Payment successful" and leaves. That evening, no Rs 1,200 has arrived in the shop's wallet. What happened, and what should the shopkeeper do next time? [2]

c. Your phone shows a message: "Is it you trying to sign in from Lagos, Nigeria? Yes / No". You are at home in Bhaktapur and weren't signing in. What does this tell you, and what should you do? [3]

6 Calculation [2]

Show your working.

A message tells Sushma she has won a phone. She pays a Rs 1,500 delivery charge. Then she is asked for Rs 4,000 for tax, and then Rs 9,500 for a processing fee. She pays each time. How much has she lost? When was the right moment to stop, and why?

Answer:

7 Long answer [4]

Write a long answer to the following question.

Make a backup plan for the photos on your family's phones. Say what you would back up, where the copies would be, how often, and how you would check that the backup works. Explain why at least one copy should be away from home.

8 Think [2]

Think, then answer.

Your grandmother has a phone with a wallet app, and uses the same password for everything. If she could make only one change this week, which would you choose for her, and why?

9 Activity: A security check-up (not marked)

Work with an adult at home, on their devices, with their permission. For each phone or laptop in your home, check these things and write what you find. For two-step login, check the device's main account, such as its email account.

Device	Updates installed? Screen lock?	Two-step login?	Photos backed up where?