TRAINING QUIZ: MALWARE, VIRUSES AND PHISHING (w/ Answer Keys)

Part I: Background and Context - Malware, Phishing etc.

1. What do phishing, spear phishing, vishing, scareware, watering hole attacks and their ilk have in common?

A. They are all "social engineering" attacks that commonly disguise themselves as coming from trusted individuals in order to manipulate you (their target) into letting down your guard and falling for cyber attacks. A social engineering attack leverages the human factor to obtain sensitive information. A cyber attacker will exploit the human nature of trusting, the desire to be helpful and the lack of awareness of social engineering attacks such as phishing, vishing and smishing to obtain personal information.

B. They are all funny-sounding terms that have no harmful significance other than their ability to wreck your computer, steal or corrupt your personal and other confidential information, ruin your day (and possibly more than just that one day), and bring ill repute to yourself or to your company or organization.

C. They are today's common examples of a much larger and constantly evolving set of methods used by bad guys to exploit human behavior in order to wrongfully access computers and their contents.

»»» D. All of the above are correct.

The main lesson from this training is simply to recognize, <u>first</u>, that malicious actors are constantly trying to make you unwittingly do damaging things to your electronic devices, your accounts and your data; <u>second</u>, that you go a long way toward protecting your "stuff" by staying alert to that fact; and <u>third</u>, that you don't need to memorize the names or the mechanisms of the attacks, but rather to understand what they have in common and what normal human behaviors they typically exploit.

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2. Who are the targets of modern day hackers?

A. Banks and finance companies who process a lot of payments.

»» B. Any organization or individual is liable to be the victim of hackers.

C. Companies which hold a lot of proprietary information.

D. Companies which hold credit card numbers of customers.

So your company isn't the Pentagon or the World Bank? Doesn't matter! You too can be targeted for cyberattack, whether intentionally targeted (for any number of reasons) even unintentionally victimized as the result of an opportunistic attack.

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3. True or False: To protect personal information and other sensitive data, you need only worry about outsider threats such as hackers, phishing scams and ransomware.

A. True »» **B. False** Not true! Threats can come from internal sources (intentionally or unintentionally), including from insider theft. What does this mean for you? It means **don't share passwords!** Even with trusted co-workers. And that's because your co-workers are stealing from you, although that too is not unheard of. Rather, it's because your co-workers could themselves be the unknowing victims of theft and thereby "stealing" from you when you share your credentials with them or don't secure your accounts.

Does this mean you shouldn't install software from the internet? No, but it means be careful about the websites you visit and the sources of files you download and install, and look for known trusted sources and be alert to signs of fraudulent activity. This training is intended to help you recognize these signs.

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4. True or False: If you install software from the internet there is a possibility that viruses or malware could infect your computer and access PII or sensitive data.

»» A. True B. False

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5. An email claiming that you won the lottery and requesting that you fill out the corresponding information, is an example of what type of cyber-attack?

A. Baiting **»» B. Phishing** C. Scareware D. Vishing

Correct! Phishing is usually in the form of an email that tries to trick you into providing your username, passwords and other personal information or click a link that will install malware programs on your computer. Baiting is the promise of an item or good that malicious actors use to entice victims. Baiters may leverage items such as offering a free Amazon gift card, music, or movie download to trick users into handing their login credentials.

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6. Which of the following is/are example(s) of a phishing attack?

A. Sending someone an email that contains a malicious link that is disguised to look like an email from someone the person knows.

B. Creating a fake website that looks nearly identical to a real website in order to trick users into entering their login information.

C. Sending someone a text message that contains a malicious link that is disguised to look like a notification that the person has won a contest.

»»» D. All of the above are correct.

Correct! Phishing attacks attempt to get a user to click on a malicious link or file by impersonating a trusted source the user is familiar with. All of the above are examples of phishing attacks.

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7. True or false: Scareware is malicious software that tricks computer users into visiting malware-infested websites by displaying a fake pop-up warning on the screen.

»» **A. True** B. False

This is true. Here's an example of Scareware:



Scareware involves victims being bombarded with false alarms and fictitious threats. Users are deceived to think their system is infected with malware, prompting them to install software that has no real benefit (other than for the perpetrator) or the actual malware.

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8. In a "watering hole" attack, the attacker compromises a site likely to be visited by a particular target group, rather than attacking the target group directly. True or False?

»» A. True B. False

Correct! A watering hole attack is a security exploit in which the attacker seeks to compromise a specific organization or user group by infecting a website that the user is likely or known to visit. The goal is to infect a targeted user's computer and gain access to the network at the target's workplace.

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9. "Vishing" is a cybercrime that uses the phone to steal personal confidential information from victims. True or False?

»» **A. True** B. False

Correct! Vishing is a cyber-attack that leverages voice communication. This technique can be combined with other types of cyber-attacks that entice a victim to call a certain number and divulge sensitive information.

An example of "vishing": An automated caller informs you that your bank account or credit card has been compromised canceled ("Hello, this is the fraud department with Wells Fargo. We are calling regarding a suspicious charge on your account"), and you have to call a number back to reactivate it. When you call, you get an automated system that asks you to confirm your identity as well as all sorts of private questions. The attacker may ask you to read off a code that your bank sends to you (legitimately) to confirm your identity. This is really not your bank. The attacker is instead recording all your information for identity fraud.

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10. True or false: You can trust that an email from your client really comes from that client if it uses the client's logo and contains at least one fact about the client that you know to be true.

A. True »» **B. False**

Correct! Perhaps this falls under the category of "it goes without saying", but phishing is by definition an attempt to fool you into trusting a sender.

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11. Cyber security protection of an organization is the responsibility of:

»» A. Everyone in the organization.

- B. The CIO or CISO executive.
- C. A specialized cybersecurity defense team.
- D. The board of directors.

Yes, every one! That's the thing. The NYC Law Department's main systems were hacked because someone gained access to an authorized user's account password and the account wasn't enabled for 2-factor authentication (2FA). (See <u>https://www.nytimes.com/2021/06/18/nyregion/nyc-law-department-hack.html</u>.) Protecting your password and using 2FA won't guaranty protection, but doing those things makes intrusion a <u>lot</u> harder.

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Part 2: Cyber-Attacks in Action (with Examples)

1. What are some of the ways to distinguish a legitimate email from a phishing email?

A. Bad spelling, poor syntax and grammar are common signs of a fake email. On the other hand, an email with good spelling, syntax and grammar is probably ok.

B. Look at the email headers to see where it really came from.

C. Poorly replicated logos.

»» D. Contact the sender on some other medium besides email to verify whether they sent you the email.

All of the above are good things to look for when trying to determine whether an email is legitimate. However, just because the spelling is good doesn't make things peachy. It's just that some of the easier ways to pick off phishing emails is by poor spelling, or bad replication of logos. And email sources can be "spoofed", meaning that it may seem to be sent by a legitimate source. Or ... you may receive an email sent from a legitimate-looking address that really isn't – for example, the sender's email domain doesn't match the organization that the sender says they are from, or it's a slight variation on a valid address ("xxx@PayPal36.com" or something like that). The only sure way to verify whether a message is valid is to call the sender and confirm directly.

Funny thing about spelling and grammar mistakes: It might seem obvious (to you) that an email or text or pop-up with funny spelling is a phishing attempt, the mistakes actually may be intentional. While it may actually seem that the spelling/grammar mistakes may easily raise suspicions on the legitimacy of the email, Cyber-attacks can be highly sophisticated, and poorly written copy is sometimes used to suss out less attentive users. A poorly written email generating a hit shows an attacker that this user may be an easy target for future efforts.

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2. A new window pops up on your screen telling you that a virus has been found on your computer. You are presented with a message intending to deceive you into thinking your computer is infected with malware, prompting them to install software that has no real benefit (other than for the perpetrator) or downloading the actual malware, or redirect you to malware-infested websites. For example:

🤌 Win	dows Secur	ity Alert 🛛 🔀
٢	To help pr harmful s	rotect your computer, Windows Firewall has detected activity of of offware.
Do you	want to bloc	k this software from sending data over the Internet?
	Name: Risk Level: Description:	Trojan-Spy.Win32.GreenScreen CRITICAL This is spy trojan that installs itself to the system, hides itself and then captures screen images and saves them to disk files in encrypted form. Thus it allows to a hacker to watch screen images. Keep Blocking Unblock Enable Protection
Windows remove v your corr use. <u>Clict</u>	s Firewall has riruses, keylog hputer, includin <u>k here to pick r</u>	detected unauthorized activity, but unfortunately it cannot help you to gers and other spyware threats that steal your personal information from ig your Credit Card data and access passwords to the online resources you ecommended software to resolve this issue.

"Scareware" is a false alarm or fictitious threat. How can you tell this is Scareware?

A. Hovering over any of the links will direct you out to third party websites for action, not to Microsoft domains.

B. Windows Firewall will not direct you out to third party websites for action.

C. Seeks to make you click on buttons for "Enable Protection" and "Click here to pick recommended software to resolve the issue".

D. The entire pop-up window may be hyperlinked, directing you to third party websites for action. **»» E. All of the above are correct.**

Among other things, be wary of unsolicited messages about malware or viruses, whether on your computer or phone. An unsolicited message urging you to "take immediate action" about malware or viruses is not necessarily malicious, but it is something to be careful with.

The window then presents you a button for you to click offering to resolve the issue. Your best course of action is to:

A. Click on the button to remove the virus.

B. Place your cursor over the button and check the link's website address (URL). If the address looks legitimate, click on it. If it looks like a scam link, close the window.

»» C. Close both the original browser window and the new "pop-up" window. Do not return to that site.

D. Hit the back button and see if it goes away.

There is no possibility – zero – that the pop-up is legitimate. You are not going to get pop-up windows from legitimate vendors of anti-virus protection, especially if you haven't previously enabled anti-virus protection yourself. You don't have to put yourself in the position of having to validate this one. Placing your cursor over the button and determining that the link address looks ok is not going cut it.

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3. Unexpectedly, you get an email from a colleague who asks you to urgently click on an email link which they've sent you. Q: What's going on here? A: Who knows, but it has common signs of phishing: An urgent request for action. An unsolicited link sent to you. Q: What should you do?

A. The link is from a known person therefore it's safe to open.

B. If the link was malicious the organization's firewall would have flagged or blocked it, therefore it's safe to open.

C. Reply to the sender to double-check if the link is safe to open as they might have sent it accidentally.

»» D. Do <u>not</u> click the link. Telephone or email or text the sender for verification: Any method other than replying to the email.

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4. A colleague calls you telling you she has an urgent deadline to meet. Unfortunately, your colleague forgot her password to [whatever system] and asks you to provide her your password. What should you do to help?

A. Go to a computer terminal and log the user in so they can meet their deadline.

»» B. Suggest to your colleague that they call your IT helpdesk for a password reset link.

C. Give them your login credentials temporarily so your colleague can meet their deadline.

D. Put your login credentials on an encrypted USB memory stick and hand it to them.

But in this case, your colleague called you (rather than emailed), so you know it's her, so what's the problem? You still should not share your passwords. Never!

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5. You receive an email from your bank warning you that suspicious activity has been detected and to login immediately using a link provided. Which of these actions should you <u>not</u> do?

A. Login immediately and change your password to a more complex one.

B. Login to your bank account immediately and check your balance.

C. Check the headers in the email and then login.

D. Contact your bank by telephone or email using the contact information provided in the email notice you received.

»» E. You should not do any of these things.

Contact your bank by telephone or by email, but not via the contact info provided in the email. Instead, contact your bank by telephone to the telephone number on your regular bank statement. Do not use the telephone or email provided in the email notice you received, unless of course it's the same as the number on your bank statement or you otherwise confirm it's valid.

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6. You get a call from your support helpdesk saying they are performing an urgent server upgrade. They ask you for your password. What should you do?

- A. Get the caller's name and give him your login and password.
- B. Get the caller's email address and email him your login and password.
- C. Give the support representative your password, but not your login.

»»» D. Refuse and contact your manager or technology director.

Correct! You should <u>never</u> share your password with anyone! Plus, there shouldn't be any reason why anyone (including your technology support helpdesk) should need your password. Further, you should contact your manager or technology director to report the call as it could be a social engineering attack against your organization.

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7. True or false: If you're working on a project with a colleague or a vendor, you can click on any links as long as you have a spam blocker and anti-virus protection.

A. True »» **B. False**

Actually, the answer is <u>probably</u> false. Do not assume that links (or attachments) are valid even if they come from known sources. For example, it might be perfectly fine to receive an email with a link from a colleague with whom you are working on a project and the email (and the link) seem consistent with the project and other emails you've received from the same person. The context helps validate the information. But not so with an unsolicited or out-of-known-context link or attachment – even from a known colleague. Before you click on links or open attachments, pick up the phone or text or Slack to confirm the link or attachment.

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8. You get an email from your Operations Director asking you to provide personal information right away. True or false: You should check it out first to verify who they say are and the validity of the request, and then it's ok to send.

»» **A. True, but** B. False

Yes, but how exactly do you verify the validity? Well, in and of itself, a request over the telephone for personal information is a flag, because you generally should not share personal information – by any means, to any person – unless (in a business context) doing so is a necessary function of your job and also without knowing (a) who you're giving it to and (b) the legitimate purpose for which they are requesting it.

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9. You receive an email from your boss or manager or the company CFO: She asks for the name, addresses, and credit card information of the company's top clients. The email says it's urgent and to please reply right away. You should reply right away. True or False?

A. True »» **B. False** Correct! It may be a phishing attempt. Check it out first and confirm whether the request was really from your boss. How do you confirm it? **Call your boss!**

Or ... you get this email:

Elle Messa	ige -		Request	- Mess	age (HTML)					×
🖓 Ignore 🗙 🍇 Junk + Delete	Reply Reply All	🚔 🛤 Forward 🍋 -	 Manager To Manager Team E-mail 	5	Move	Mark Unread Categorize * Follow Up *	Translate	Zoom	Report Phishing	
Delete	Resp	bond	Quick Steps	12	Move	Tags 15	Editing	Zoom	PhishMe	
Subject: Req	uest									
Hi,										1
Are you b send the ben	usy ? i need y eficiary's deta	ou to proces iils.	s a wire transfer	for m	e today. Le	t me know whe	n you are free	e so tha	at i can	
Are you b send the ben Thanks	usy ? i need y eficiary's deta	ou to proces iils.	s a wire transfer	for m	e today. Le	t me know whe	n you are free	e so tha	at i can	

How can you check whether the request is valid?

A. Check the sender's email address for discrepancies, by hovering over the address with your mouse (or by pressing – and holding, not clicking – if on a phone).

B. Follow normal procedures for payments and wires, which may include double sign-offs on certain threshold amounts.

C. Pay attention to unusual circumstances in the request, such as statements of urgency.

»» D. All of the above are correct.

As with so many other phishing communications, context matters <u>a lot</u>. For example, it may actually be common practice in your business to receive requests like this from your CEO, or you may have been separately made aware of an "urgent" request coming your way by email. There is more you can do, however, especially if your business already has financial controls in place to prevent fraud like this. For example, your business may require telephone confirmation for all financial transactions initiated by email, which is an obvious best-practice regardless if you have concerns about the request. In addition, while the sender's email address can be spoofed making it appear to be coming from a valid source, you can also pull up the "reply-to" email by clicking on the "reply" button – without actually sending the reply. If the email was a fraud, then the "reply-to" will be the hacker's email address, not your CEO's address.

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10. You receive this "Receipt for your Payment to Coinbase" email from PayPal:

Receipt For Your Payment to Coinbase In	с		
From: Sandhya Aryal (000002068@aibtglobal.edu.au To: mirskyat@yahoo.com Date: Sunday, June 13, 2021, 09:30 AM EDT	0		
PayPal	Transacti	on ID:9485BNMI	<362500M
Hello ,			
You sent a payment of \$799.99 to Coinbase I	nc.		
It may take a few moments for this transaction to appea	r in your account		
Merchant Coinbase Inc	Instructio You haver	ns to merchant I't entered any instructio	ons.
Description	Unit price	Qty	Amount
Order ID - 8057000002213005112	\$799.99	1	\$799.99
		Subtotal Total	\$799.99 USD \$799.99 USD
		Payment	\$799.99 USD
Ch	arge will appear on your crec	nt card statement as 19/ Paymen	treat to Coinbase Inc

You know you didn't authorize a payment, so this probably gets your attention regardless. But how else can you tell that this is a fraudulent email?

A. The sender's email is "0000002068@aibtglobal.edu.au" (rather than from a PayPal sender).

B. The phone number is not the actual PayPal number.

C. The whole email is hyperlinked (not just embedded links), so that if you click on any part of it, it will take you too a malicious website. Or ...by clicking on any part of it, it may then immediately download malware onto your device.

D. The PayPal logo is not accurate.

»»» E. All of the above are correct.

What actions(s) is the sender trying to get you to do?

A. Click on (and dial) the (fake) phone number, and then provide personal information when solicited by the sender.

B. Click on the hyperlinked email and thereby cause you to download malware, or be redirected to a malware-infested website.

C. Nothing. While the email is a fake message pretending to be from PayPal, the sender is not trying to cause you to do anything other than simply annoy you.

»» D. Both A and B are correct.

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11. You get a text from a vendor asking you to click on a link to renew your password so that you can log in to its website. You should:

A. Reply to the text to confirm that you really need to renew your password. **>>> B. Pick up the phone and call the vendor, using a phone number you know to be correct, to confirm that the request is real.**

C. Click on the link. If it takes you to the vendor's website, then you'll know it's not a scam.

Correct! Before you click the link, make sure the text is legitimate and the request is real. Otherwise, clicking on the link could download malware or expose company credentials.

You receive this email from that same vendor or perhaps from an unknown person:

Jessie 🥥	Today at 9:58 AM
To: undisclosed-recipients: ;	(JW
Re: Invoice	
Hello,	
Please revise the attached invoice and resend.	Find invoice attached.
Regards,	
Jessie	
2nd Floor, No 3505 Jalan Technokrat 5	
Malaysia	
Tel: +60-3-8318-3111	
Fax: +60-3-8318-8190	
This message was sent using IMP, the Internet	 Messaging Program.
PDF	
Inclusion and	

Source of image:

https://www.itgovernance.co.uk/blog/5-ways-to-detect-a-phishing-email

Or you receive this email, presumably from a package delivery service:

Wrong delivery address



Source of image: https://www.forbes.com/sites/barrycollins/2021/01/16/dont-click-on-these-5-dangerous-email-attachments/?sh=253b0e577847

In both examples, the senders are trying to get you to click on the attachments. In one case, it's a pdf ("Invoice.pdf") that looks like a perfectly legitimate (or harmless) invoice file, and in the second it looks like a fuzzy screen shot of an actual DHL invoice. In both cases, the files will cause malware to download onto your computer.

Which of these may indicate that these emails are trouble?

A. The email is unsolicited or from an unknown source.

B. The email address uses a strange "to" field, perhaps a long, alphabetical list of recipients, or the "to" field is blank.

- C. A vague or ambiguous subject line.
- D. No salutation addressing you.
- E. Poor grammar/spelling
- F. A sense of urgency in the requested response
- **»» G. All of the above are correct.**

The file type of an attachment is also a tip-off, but that can be more challenging to perceive, for several reasons. ".exe" files are executable files, which launch programs when you click on them and which can install malware on your computer. It's unusual to share ".exe" files by email, since there's typically no reason to do so. On the other hand, some attachments can show the icon for a Microsoft Office document (Word, PowerPoint, etc.) or PDF, but still have the .exe extension.

The problem gets trickier with other file types, including Word and other commonly used Microsoft Office files and Adobe files such as PDF. These files are of course shared routinely countless times

every day, and mostly quite safely. However, these files can be embedded with macros which can cause malware to download onto your computer.

What is one to do to protect oneself against these sorts of attacks via malicious attachments?

A. Don't click on attachments. Period.

»» B. If the email has passed the "tests" above, but you're still unsure whether the attachment is safe to open, call or email or text the sender by a method other than by replying to the email.

Not clicking on any attachments is certainly a safe way to prevent phishing or malware attacks via malicious attachments, but perhaps not the most practical way to live in the modern technologically interactive world. Especially when there are safe and practical alternatives.

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12. This email from Lyft asks you to confirm your email address. How can you tell that this email from Lyft is <u>not</u> suspicious?



A. The sender's email looks like it's from a valid Lyft email domain: "noreply@lyftmail.com". B. If you roll your mouse over the links (without clicking), the links direct you to Lyft domains (subpages on https://account.lyft.com or https://help.lyft.com), all of which also have the "https://" security indication.

C. You were using the Lyft app only minutes before receiving this email, and it made sense that you should receive this email based on that context.

»» D. All of the above are correct.

The truth is, you can't tell for sure that an email is legitimate. You can only make reasonable guesses based on experience and common sense. In this case, the added factor of context and timing was important, because I had been using the Lyft app only minutes before receiving this email, and it made sense that I should receive this email based on that context.

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13. You get this email from Hotels.com:



Bookings using this coupon are not eligible for Hotels.com™ Rewards.

How do you know this one is not legitimate?

A. Hotels.com would never send an ad like this.

B. The sender's email is "Hotelscom@roktpowered.com" (rather than from a Hotels.com domain).

C. The urgency that "you must <u>click</u> through this email or book through our app to redeem this coupon."

»»» D. Answers B and C are the strongest reasons for questioning the validity of this ad.

It's entirely possible that Hotels.com does publish ads like this, and the layout and graphics do look strikingly sophisticated in matching Hotels.com's artwork. But the requirement that "you must click through this email" is a flag because ordinarly you could take the coupon code listed and use it on Hotels.com's website. These might be emails that look like ordinary promotions you get from reputable sources, but instead clicking on them takes you to a website that solicits personal information or causes malware to download on your computer.

Source of this image: https://www.securitymetrics.com/blog/7-ways-recognize-phishing-email

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13. You receive this email from Costco about a problem with delivery of your order:



What actions(s) is the sender trying to get you to do?

»» A. Click on the link in the email to "complete this form" and thereby cause you to download malware, or be redirected to a malware-infested website or provide personal information when solicited by the sender.

B. Nothing. While the email is a fake message pretending to be from Costco, the sender is not trying to cause you to do anything other than simply annoy you.

What should you do now that you believe these are phishing emails?

- A. Delete and ignore them.
- B. Contact PayPal using the phone number listed in the email.

C. Login to your PayPal (or Costco) account and check your account status and look for fraudulent transactions in the transaction history.

D. Email or phone PayPal (or Costco) using the contact methods listed on PayPal's website. **>>> E. Both C and D are correct.**

While there's no direct harm in deleting and ignoring the messages, you won't be able to tell whether actual fraudulent transactions took place without actually checking your account or actually contacting PayPal (or Costco). But don't use the phone number listed in the PayPal email, which may be a fake number directing you to a call center seeking to improperly obtain personal information from you.

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14. How would you recognize whether this is (or is not) a genuine text message from a the US Postal Service:



[Source of image: https://havocshield.com/post/smishing-example]

A. You aren't actually expecting anything from USPS.

- B. Your name isn't Emily.
- C. You never signed up for text alerts from USPS.
- D. The URL link looks suspicious, for (among other reasons) it isn't a USPS domain.
- **»» E. All of the above.**

Potentially, all of the above. You might actually be expecting a package delivered, or you might not be surprised if someone were sending you something that you weren't aware of. This is an example of "smishing" (a variation on "phishing" delivered via SMS). Smishing is when someone tries to trick you into disclosing personal information using a text or SMS message. Smishing is a form of social engineering attack that exploits SMS or text messages. Text messages can contain links to webpages, email addresses or phone numbers that when clicked will automatically open a browser window or email message or dial a number. The links may also contain a form requesting you to enter your personal information to receive a non-existent reward or offer.

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Part 3: Preventing Successful Cyber-Attacks (and Mitigating Damage if/when it Happens)

1. Which of the following are signs that you may have a virus?

- A. Mass emails sent to your contact list without your authority
- B. Slow performance
- C. Unusual pop-ups prompting you to download antivirus and other programs
- D. Password changes without your authority
- E. Hard drive making continual noise
- F. Files missing
- G. A change to your website homepage
- H. Error messages
- I. Computer freezes or crashes
- J. Unfamiliar programs start up when you start your computer

»» K. All of the above.

Recognizing the signs of a virus can – if detected early enough – allow you to take remedial action without major loss of data or other adverse consequences. (Source:

https://www.safetydetectives.com/amp/blog/what-is-a-computer-virus-and-how-to-avoid-infection-in/)

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2. Which of these are things you should <u>not</u> do if you detect a virus?

A. Quit any application or software that seems to be affected.

B. Stop shopping, banking, and doing other things online that involve usernames, passwords, or other sensitive information – until you get your device cleared of any virus or malware.

»» C. Continue using the same passwords as previously.

D. Check to see if you have security software on your device – if not, download and install it. E. For Windows-based devices, run a virus scan with your security software. (For Macs, go to 'Activity monitor' and search for known Mac viruses such as 'MacDefender', 'MacProtector', or 'MacSecurity'.) Delete any viruses or malware identified.

F. Make sure your software is up to date. Check that all software — the operating system, security software, apps, and more — is up to date. Consider turning on automatic updates so your software always stays up to date.

You should do all of these things, but not continue to use the same passwords. Definitely – and immediately – change your passwords or access codes for any files, your devices and for any accounts that ordinarily are accessible through your compromised device.

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3. Turning on your firewall is sufficient to prevent malware attacks, true or false?

A. True

»» B. False

A firewall provides protection against malware attacks, but it is <u>not</u> sufficient protection. The sufficiency of a firewall is dependent on many factors, most importantly the type of firewall (whether off-the-shelf or default firewall (like Windows' default firewall)) and whether properly configured to your devices and systems, but also the nature of an attack (such as a phishing or insider attack, which circumvent firewalls by the unwitting permission of the user). Firewalls can also be disabled by complex malware once it infects your computer, and therefore firewalls must be used in tandem with strong and fully updated anti-malware and anti-virus software.

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4. "Private browsing" is a feature in many internet browsers that lets users access web pages without any information (like browsing history) being stored by the browser.

Does private browsing prevent malware attacks?

A. Yes **»» B. No**

Can internet service providers see the online activities of their subscribers when those subscribers are using private browsing?

»» A. Yes B. No

Private browsing prevents a user's internet browser from storing certain kinds of files on his or her device. That's useful to a point, in order to prevent some snooping of your internet activity. However, you should be aware that internet service providers (ISPs) can still see all of the details of your web traffic. To prevent ISPs from obtaining your web history, you can use a Virtual Private Network (VPN). By using a VPN, you can create a secure connection between your device (tablet, PC, Laptop, smartphone) and any website. Private browsing also does not prevent you from receiving phishing messages or malware and does not block nor prevent you from receiving or downloading corrupted or dangerous files.

* * *

5. If a Scareware window pops up on your computer – for example, a new window pops up stating "Your iPhone has been infected by viruses and malware", telling you to click a green button to "Repair iPhone Now" – and you recognize it (which is good!), is it ok to simply click the "X," "cancel," or "close" button on the pop-up window?

»» A. No B. Yes

Definitely definitely no! Do not use the "X," "cancel," or "close" buttons to close the window or the app. It might trigger automatic malware downloads. Instead, quit your browser (on your computer – or Force Quit if need be) or quit the app on your phone (first, by swiping up and to the right on your phone, and then swiping up).

* * *

6. If you fall for a phishing scam, what should you do to limit the damage?

A. Delete the phishing email.

B. Unplug the computer. This will get rid of any malware.

»» C. Change any compromised passwords.

Correct! Deleting the phishing email won't undo the damage already done, and unplugging the computer won't get rid of malware. Among other steps, if you fall for a phishing scheme, you should immediately change any compromised passwords and disconnect from the network any computer or device that could be infected with malware because of the phishing attack. This will help limit the damage.

* * *

7. What are steps you can take to minimize the risk of a malware or phishing or ransomware attack (and minimize the impact of a successful attack)?

A. Ensure that anti-virus tools are running and up to date

»» B. All of these answers are correct.

C. Keep your computer software up to date

D. Ensure that you are backing up your critical files

* * *

8. You've inadvertently opened a link or download or open a file contained in a suspicious email and now your computer is behaving strangely. What course of action should you take next?

A. The purpose of a firewall and security software is to block malicious code getting into your computer in the first place, so no further action is needed.

B. Update and run your anti-virus software.

»»» C. Contact your IT help desk or Information Security team.

D. Keep an eye on the performance of your computer.

* * *

9. What does the "https://" at the beginning of a URL denote, as opposed to "http://" (no "s")? And what is its significance to your accessing websites?

A. The site has special high definition.

»» B. Information that you exchange with that website travels via a secure connection.

C. The site is not accessible to certain computers.

D. None of the above

Correct! Accessing only websites showing "https://" at the far left of the URL box (such as "https://mstreetlegal.com") reduces the likelihood of anyone other than you and the website owner viewing information exchanged. Equally importantly, it also ensures that you're actually connected with the website you think you're connected to, rather than to an impostor website. A website that encrypts its traffic may also display a sign of a locked padlock in the beginning of its URL address. This is what this looks like:

Consumer.ftc.gov/articles/0014-tips-using-public-wi-fi-networks

* * *

10. If a public Wi-Fi network (such as in an airport or coffee shop) requires a password to access (as opposed to being open-access without password to all users), is it generally safe to use that network for sensitive activities such as online banking?

A. Yes, it is safe. **B. No, it is not safe.**

Even if a public Wi-Fi network requires a password, other users on the same network can potentially view sensitive information that you send across that Wi-Fi network. A Virtual Private Network (VPN) allows users to create an encrypted connection between their devices and the internet, making it much harder for anyone other than the user to see their activity.

* * *

11. How can you identify an unsecure Wi-Fi network?

A. The Wi-Fi is available for free in public places>>> B. Does not require a username and password to connect.C. Not sure

Correct! An unsecured network can be connected to without requiring any security control such as a login username and password. A secured network requires a user to setup an account, enter a username and password, and agree to legal terms of use prior to connecting to the network. However, as noted previously, even if a public Wi-Fi network requires a password, other users on the same network can potentially view sensitive information that you send across that network. For that reason, consider using a virtual private network (VPN) to ensure your privacy and personal information are protected when you use public Wi-Fi. And use 2-factor authentication (2FA) to ensure that your online accounts are protected when you use public Wi-Fi.

* * *

12. What actions can you take <u>today</u> to secure your devices, your password-enabled accounts and your personal information and files from snoopers, thieves and other unwanted intruders?

»» A: Self-Assessment Checklist (of Information Security and Data Privacy Actions)

This is Checklist of basic device and account security measures that you can take to prevent or mitigate the most common data security and privacy vulnerabilities, sort of the "low-hanging fruit" of data security and privacy protection. The Checklist can be accessed here:

https://mstreetlegal.com/privacydatasecurityresources#datasecuritytraining