

## CC0002 Collated answer for lams

### Lams 1

1. \* Which of the following is used in the process of computational thinking?

Choose one of the following answers.

- ☐ Algorithm
- ☐ Decomposition
- ☐ Abstraction
- ☐ Pattern recognition

✓ ☒ All of the above

That is correct!! Algorithm, decomposition, abstraction and pattern recognition are all computational thinking competencies.

### Lams 2

Answer the question below and click on the 'Submit all' button at the bottom right corner.

1. \* In which of the following disciplines can you see computational thinking application?

Choose one of the following answers.

- ☐ Biology
- ☐ Economics
- ☐ Arts
- ☐ Engineering

✓ ☒ All of the above

Computational thinking can be applied across all these disciplines and more.

1. \* What is abstraction in computational thinking concept? Check all that apply.

Choose at least one answer.

✓ ☒ Pointing out necessary information

✓ ☒ Filtering out irrelevant detail

✓ ☒ Simplifying the complexity

All the options are descriptions of what abstraction is as a computational thinking competency.

1. \* Which of the computational thinking competency allows you to break down a complex phenomenon into smaller chunks to solve a problem?

Choose one of the following answers.

☐ Abstraction

☐ Algorithms

✓ ☒ Decomposition

☐ Pattern Recognition

☐ None of the above

Decomposition helps us to break down a problem into smaller chunks so that we can divide and conquer complexity.

Answer the question below and click on the 'Submit all' button at the bottom right corner.

1. \* Which of the following example(s) illustrates pattern recognition? Check all that apply.

Choose at least one answer.

✓ ☒ Asking students to evaluate the locations of volcanoes and earthquakes across the globe

✓ ☒ Having students to learn colors and shapes by clustering them

☐ Grouping students randomly

✗ ☒ Ascending the numbers

**Ascending the numbers** is about algorithms and not pattern recognition.

**Grouping students randomly** does not have a clear set of grouping and thus has no pattern.

1. \* How does computational thinking benefit us the most?

Choose one of the following answers.

☐ To learn computer programming

☐ To think like a machine or computer

✓ ☒ To solve complex problems by using specific techniques

☐ None of the above

While computational thinking may support us in learning computer programming or to think like a machine or computer, it is most helpful in providing us with specific techniques to solve complex problems found in various aspects of our lives.

## Lams 3

1. \* Pairing up your socks back together is an example of...

Choose one of the following answers.

☐ Abstraction

✓ ☒ Pattern recognition

☐ Algorithms

☐ Decomposition

Pattern recognition helps us to match up the right sock pairs.

2. \* Baking a cake by following its step-by-step instructions is a good example of...

Choose one of the following answers.

✓ ☒ Algorithms

☐ Abstraction

☐ Decomposition

☐ Pattern recognition

Algorithm is a step-by-step process while solving a problem.

\* Breaking down choreographic forms of dance into smaller acts (e.g., narrative, canon, retrograde) is an example of...

Choose one of the following answers.

☐ Algorithms

✓ ☒ Decomposition

☐ Abstraction

☐ Pattern recognition

Decomposition is a breaking down process while solving a problem.

\* A MRT map is a good example of...

Choose one of the following answers.

☐ Pattern recognition

☐ Decomposition

☐ Algorithms

✓ ☒ Abstraction

Abstraction allows us to simplify the complexity and bring up relevant necessary information.

## Lams 4

1. \* Which of the following real-life questions can be considered as quantitative reasoning problems?

Choose at least one answer.

✓ ☒ Should I buy health insurance at my current age, or wait?

✓ ☒ Which canteen stall to queue up for lunch if I am in a hurry?

✓ ☒ When should I start from home to reach school on time?

Every problem mentioned in the question requires you to think quantitatively. In case of health insurance, you need to estimate the risk and gain based on probabilities. In case of time estimates, you need to know about routes and traffic flows. In case of canteen queues, you need to know about the processing time for the food as well as service time depending on the rush and manpower.

1. \* Arrange the following steps in order, as they are considered while solving a quantitative reasoning problem.

Sort answers in the right order (click on the answers to drag-and-drop in order).

✓ Framing concrete numerical questions

✓ Identifying tools and data for analysis

✓ Building models to analyse the data

✓ Analysing the results you obtained

1. \* Suppose you find that the mean time for headache subsiding in case of drug trials is just 2 minutes and the mean for headache subsiding in case of placebo is 20 minutes. Which of the following is true in this case?

Choose one of the following answers.

- ☐ Taking the drug results in a lower time for subsiding the headache most of the time.
- ☐ Taking the drug will always result in a lower time for the headache to subside.
- ☐ Taking the drug will never result in subsiding the headache in time lower than placebo.
- ✓ ☒ Taking the drug results in a lower time for subsiding the headache on an average.

Only lower on an average. We can't claim any of the other three cases without further information.

1. \* What does Mean of a distribution signify?

Choose one of the following answers.

- ☐ The extreme behaviour of the data points.
- ✓ ☒ The behaviour of data points "on an average".
- ☐ The "deviation" of data points from the average.
- ☐ The behaviour of each individual data point.

Mean is quite literally the "average" behavior of the data points, and is computed as "average" as well.

2. \* What does Standard Deviation of a distribution signify?

Choose one of the following answers.

- ☐ The behaviour of each individual data point.
- ☐ The behaviour of data points "on an average".
- ☐ The extreme behaviour of the data points.
- ✓ ☒ The "deviation" of data points from the average.

Standard Deviation is the average deviation of a data point from the Mean of the distribution, computed as follows.

$SD = \sqrt{\sum (\text{data point} - \text{mean})^2}$

1. \* We found that the drug is not identical to the placebo in case of our headache trials. This means the drug actually works in case of headaches better (faster) than placebo. Will you now take the drug for headache?

Choose at least one answer.

- ✓ ☒ Not sure yet. The drug works better in general, but will it work for me?
- ✓ ☒ Not sure yet. The drug reduces the time only by 4 minutes on an average.
- ✓ ☒ Not sure yet. Need to perform a cost-benefit analysis if I know the price.
- ☐ Yes, of course. The drug will surely work for me in case of headaches.

The trials and statistics only provides you with numeric analysis of the problem. But decision making is a bigger challenge, and often your individual preference.

## Lams 5

1. \* Suppose you find that the mean marks obtained by students in your class is 75, while the standard deviation is 5. If there are 500 students in your class, then roughly how many of them scored between 70 to 80, if you assume a bell curve?

Choose one of the following answers.

- ☐ My guess will be about half of the class, that is, 250.
- ✓ ☒ Must be close to 68% for Mean  $\pm$  SD, that is, 340.
- ☐ Maximum students score within that range, so 450.
- ☐ No one scored within that range, as it is too narrow.

If you assume a distribution is like a bell-curve, that is, if you have a Normal/Gaussian distribution, then the number of data points within the band of Mean  $-$  SD to Mean  $+$  SD is expected to be 68% of the total data points. This is a property of Normal/Gaussian distributions.

1. \* Area has a correlation of 0.76 with Price, while Quality has a correlation of 0.81 with Price. Area has a prediction error (standard error) of 51503 for Price. What do you think will be the error in case of predicting Price using Quality?

Choose one of the following answers.

- ☐ Error should be about half, that is, around 25000.
- ✓ ☒ Must be less than 51503, but not sure how much.
- ☐ Error can be same as the standard error for Area.
- ☐ Errors are not at all related to the correlations.

Correlation does matter in case of standard error for prediction, and the higher the correlation, the lower the standard error. So, it will surely be lower.

1. \* Suppose you model you score for a course as follows.  
Score =  $5 \times \text{ClassTime/Week} + 3 \times \text{RevisionTime/Week} + 50$

If the classes run for 3 hours a week, how much revision time would you need per week to score above 80?

Choose one of the following answers.

- ☐ For Score  $> 80$ , we need RevisionTime/Week  $< 5$  h.
- ☐ The relationship is not provided in the given model.
- ✓ ☒ For Score  $> 80$ , we need RevisionTime/Week  $> 5$  h.

The model gives you an estimate of score based on the features ClassTime and RevisionTime per week. Thus, we can calculate the features required to obtain a specific value (or range) of the response.

## Lams 6

1. \* Cyber security refers to \_\_\_\_\_ implemented by an organisation to protect its cyber assets from damage, malicious attack and unauthorised access. Select all that apply.

Choose at least one answer.

- ✓ ☒ practices
- ✓ ☒ technologies
- ✓ ☒ processes

Cyber security refers to the technologies, processes and practices that are put in place to protect data, devices, programs or networks from damage, malicious attack and unauthorised access.

1. \* Please identify the strongest password combination from the following.

Choose one of the following answers.

- ✓ ☒ c3V@6IG
- ☐ P@ssw0rd
- ☐ password
- ☐ S1ng@P0re

It is recommended to use passwords with unique combinations (letters, numbers, mixed case, special characters) that will enable your account to withstand relentless attacks by hackers.

1. \* Data is only available in digital format.

Answer:

- ☐ True
- ✓ ☒ False

Data refers to information processed by a computer. Information can be in physical (e.g., text documents, images) or digital (e.g. audio clips, software programs) format.

2. \* Data is classified into four levels of security. What are the four levels?

Choose one of the following answers.

- ✓ ☒ Open, Restricted, Confidential, Classified
- ☐ Open, Internal, In-confidence, Highly Confidential
- ☐ Public, Internal, Sensitive, Top Secret
- ☐ Open, Restricted, Confidential, Secret

For a recap of the four levels of data classification, please watch the video on Data Security again.

1. \* What is the key purpose of Blind Carbon Copy (BCC)?

Choose one of the following answers.

- ✓ ☒ To keep the identities of the recipients confidential
- ☐ Meant for recipients who are required to take action in response to your email
- ☐ To keep someone in the loop even if a message does not directly concern them

The use of BCC can be applied when sending impersonal emails, such as announcements, to a large list of people who may not know one another. This is a polite gesture that respects the privacy of the receivers – protecting their identities while avoiding chain email communications that may be irrelevant to them.

2. \* Which of the following statement best describes how we can reduce the risk of being hacked when connected to a public Wi-Fi network?

Choose one of the following answers.

- ☐ Always use trusted public Wi-Fi networks
- ☐ Avoid doing any sensitive transactions e.g. internet banking
- ☐ Ensure that your device has an up-to-date antivirus software
- ✓ ☒ All of the given options

For a recap of the best practices when connecting to a public Wi-Fi network, please watch the video on Acceptable IT Usage again.

## Lams 7

1. \* What are the main objectives of the NTU Cybersecurity team? Select all that apply.

Choose at least one answer.

- ☒ Availability
- ☒ Confidentiality
- ☒ Integrity
- ☐ Accountability

The NTU Cybersecurity team aims to achieve:

1. Confidentiality - Ensure data or information cannot be read by unauthorized personnel.
2. Integrity - Data or information held by NTU remains accurate and unmodified by unauthorized personnel.
3. Availability - Data or service remains usable with sufficient capability to deliver our educational services.

These objectives are highly applicable across society and are the key considerations for many other organizations when managing cybersecurity.

Answer the question below and click on the 'Submit all' button at the bottom right corner.

1. \* Which of the following actions aligns with the Acceptable IT Usage Policy (AIUP)? Select all that apply.

Choose at least one answer.

- ☒ Do not forward any university document to your personal email address
- ☒ Use Blind Carbon Copy (BCC) when sending mass emails
- ☐ Share your passwords with close friends only

It is a violation to the AIUP to share your password with **anyone**.

1. \* What are the steps to check if we have received a phishing email such as the following? Match the steps labelled in the image with the correct description.

#### Library Notice

 NTU Library <NTU@ge.se>  
ntu@ge.se

Dear Student,

Please be informed that your access to NTU Library System will expire soon. Your library enrollment (john123456789) will expire on October 15, 2020 12:00, so this is a notification for you to renew now. To renew, simply click on the following link.

[University Library](#) <https://its.sv.nyu.edu>

You will not be required to provide any identity information during this renewal process.

The above renewal link is only valid for a limited time. If you fail to renew your library enrollment before then, you will lose access to all library online services. For a list of the current library online services, please visit:

<https://www.ntu.edu.sg/library/Pages/default.aspx?2>

If you have any questions concerning your status or access to the library online services, please contact the Library Help Desk as soon as possible.

Sincerely,

NTU Library,  
50 Nanyang Ave, Singapore 639798  
Email: [libraries@ntu.edu.sg](mailto:libraries@ntu.edu.sg)

Pick up the corresponding answers

- ☒ Step 1 Check the sender's email address
- ☒ Step 2 Verify the legitimacy of the link before clicking
- ☒ Step 3 Look out for urgent threatening language

1. \* From the previous video, we learn that the acronym PASS can help us to remember how we can practise good cyber hygiene. What does it stand for?

Choose one of the following answers.

- ☒ Password, Antivirus, Spot signs of phishing, Software application
- ☐ Protect devices, Auto sign-in, Synchronize data, Security
- ☐ Password, Auto sign-in, Spot signs of phishing, Security
- ☐ Protect devices, Antivirus, Synchronize data, Software application

PASS stands for Password, Antivirus, Spot signs of phishing, and Software application. This serves as a reminder and provides practical tips for us to stay cyber safe.



# Lams 8

## 1. \* What do we mean by "fake news?"

Choose one of the following answers.

- ☒ A specific type of falsehood intentionally packaged to look like news to deceive others
- ☐ General term for false information online
- ☐ The inadvertent dissemination of false information
- ☐ The intentional dissemination of false information

Fake news is a type of disinformation that mimics the look and feel of real news to increase its deceptive power.

## 1. \* What are the motivations for the creation of fake news?

Choose one of the following answers.

- ☐ Ideological
- ☐ Financial
- ☒ All of the above

Fake news creators are motivated by two main factors. First, some fake news creators seek to make money from digital advertising. By creating outrageous content, they increase traffic to their sites. Second, other actors create fake news to push for a certain political agenda, such as to discredit political rivals or sow chaos in a target country.

## 1. \* Confirmation bias refers to

Choose one of the following answers.

- ☒ Human tendency to seek and believe in information that confirms our existing beliefs
- ☐ Human tendency to believe a lie when it is repeated several times
- ☐ Some individuals have high confidence in their ability to spot fake news but actually have low capability
- ☐ All of the above

It is easier for us to process new information when it already aligns with our existing beliefs. This makes our lives simpler, but also makes us vulnerable to fake news.

## 2. \* In a survey conducted in Singapore in December 2019, which type of news consumption was found to be positively related with belief in fake news?

Choose one of the following answers.

- ☐ All types of news use
- ☐ Traditional news media use
- ☒ Social media news use

This survey, as well as previous studies in other countries, found that social media news use is positively linked to higher propensity to believe in fake news. Why do you think this is the case?

## 1. \* In surveys done in Singapore, what do most people do when they read false news on social media?

Choose one of the following answers.

- ☒ Ignore the post
- ☐ Post a correction on their own account
- ☐ Comment on the post to say it is wrong
- ☐ Report the post so it gets removed

Most participants said they ignore false news when they see one on social media. However, this form of informational apathy allows the spread of fake news.

2. \* Why do most people ignore false news on social media?

Choose one of the following answers.

- ☐ The topic is not relevant to them
- ☐ They want to avoid arguments
- ☐ They don't want to hurt the feelings of those who posted the incorrect post
- ☐ They think that taking action won't have any impact
- ✓ ☒ All of the above

When people who are able to spot fake news do not do anything, they allow fake news to thrive. Some people post something on social media not because they believe in it, but sometimes it is because they are not sure and they hope someone can verify it for them.

## Lams 9

1. \* True or false: Authentication of information is a purely individual-level process.

Answer:

- ☐ True
- ✓ ☒ False

Authentication can also be a social process. Some people post information online, hoping someone will authenticate for them. Others also turn to family or friends to authenticate information they are unsure about, which is a form of external authentication.

1. \* Singapore's law to combat fake news, which was passed into law in May 2019, is called:

Choose one of the following answers.

- ☐ Anti-Fake News Law
- ✓ ☒ Protection from Online Falsehoods and Manipulation Act
- ☐ Network Enforcement Act
- ☐ None of the above

POFMA was passed into law in May 2019 and empowers ministers to issue orders to individuals, internet providers, tech platforms, and mass media outlets to correct or take down posts that are deemed false and threaten public interest.

1. \* Which process "occurs post publication and compares an explicit claim made publicly against trusted sources of facts?"

Choose one of the following answers.

- ☐ Verification
- ✓ ☒ Fact-checking
- ☐ None of the above

Fact-checking is the process of authenticating information already in the public domain. Verification is a process that is done prior to publication.

2. \* What is a "truth sandwich?"

Choose one of the following answers.

- ✓ ☒ A fact-check format where correction is first presented, followed by the falsehood being debunked, and ending with the correction being stressed again.
- ☐ A viral fake news post saying a type of sandwich can make people immune to fake news.
- ☐ A format used by a fact-checking site where the number of sandwiches accompanying a post visually indicates the truthfulness of the post (i.e., having five truth sandwiches means the post is completely true).

To avoid primacy effects, which may cause a fact-check to backfire, some suggest that a fact-check should start with the correct information and not start by repeating the post being debunked (because some people will remember what they see first). The fact-check should also end with the correction being stressed or repeated, so as not to let recency effect kick in (i.e., some people may remember the last thing they read).

## Lams 10

1. \* Why is ethics important to the use and development of digital and online technologies?

Choose one of the following answers.

- ☐ a) These technologies only inflict harm and misery upon humanity. We need ethics to finally end the madness.
- ☐ b) It is morally wrong to use digital and online technologies. Ethics is needed to help us find a way to overcome our dependence on these technologies.
- ☐ c) These technologies pose risks of harms to privacy, security, fairness, and other values. Ethics shows that these values are ultimately not important.

☒ d) Although digital and online technologies bring many benefits, they also pose risks of harms to privacy, security, fairness, and other values. Therefore, we need to develop and use these technologies in ways that avoid their associated harms while getting the most from their benefits.

A is incorrect. Digital and online technologies offer remarkable benefits in the form of knowledge, communication, efficiency, and personalization.

B is incorrect. While some uses of digital/online technologies can be wrong, such as cyberbullying and stealing private information, not all uses of these technologies are wrong.

C is incorrect. Privacy, security, and fairness are important values, and they are widely recognized as such.

**D is correct.** Ethics helps us assess how to develop and use digital/online technologies in ways that avoid their associated harms while getting the most from their benefits.

1. \* Which of the following is an **incorrect** application of a moral theory to the evaluation of cyberbullying?

Choose one of the following answers.

- ☐ a) Society as a whole would be better off if people didn't cyberbully each other. Therefore, from a utilitarian point of view, cyberbullying is morally wrong.
- ☐ b) Cyberbullying is cruel because it subjects another human being to anguish and humiliation. A virtuous person would not be cruel. Hence, from the perspective of virtue ethics, cyberbullying is morally wrong.

☒ c) Cyberbullying respects the rationality and autonomy of the victim, since it gives the victim a chance to rationally and autonomously overcome the distress caused by cyberbullying. Therefore, cyberbullying is morally right from the perspective of Kant's ethics.

- Cyberbullying does not respect the victim as a rational and autonomous being. It causes depression and anxiety, which is known to weaken a person's sense of control over their own lives. It also causes irrational, self-harming behavior such as eating disorders and suicide attempts. Therefore, from the perspective of Kant's ethics, cyberbullying is morally wrong.
- ☐ d) Cyberbullying does not respect the victim as a rational and autonomous being. It causes depression and anxiety, which is known to weaken a person's sense of control over their own lives. It also causes irrational, self-harming behavior such as eating disorders and suicide attempts. Therefore, from the perspective of Kant's ethics, cyberbullying is morally wrong.

A is actually a correct application of utilitarianism. Utilitarianism says that an action is wrong when it does not produce at least as much well-being as an alternative action one could perform instead. Since people who cyberbully make others worse off than they'd be if they didn't cyberbully, cyberbullying is wrong from a utilitarian point of view.

B is actually a correct application of virtue ethics. Virtue ethics says that an action is wrong if a virtuous person would not perform it. A virtuous person would not cyberbully, since cyberbullying is cruel, and cruelty is not a virtue. So, from a virtue-ethical perspective, cyberbullying is wrong.

**C is the appropriate choice,** since it describes an incorrect application of Kant's ethics. Cyberbullying does not respect the victim's rationality and autonomy, because it does not enable rational and autonomous behavior. On the contrary, cyberbullying causes depression and anxiety, which is known to weaken a person's sense of control over their own lives. It also causes irrational, self-harming behavior such as eating disorders and suicide attempts.

D is actually a correct application of Kant's ethics. Kant's ethics says that an action is wrong if it fails to respect persons as rational and autonomous beings. Cyberbullying does not respect persons as rational and autonomous beings. So, from the perspective of Kant's ethics, cyberbullying is wrong.

1. \* Which of the following actions interferes with a person's informational privacy?

Choose one of the following answers.

- ☐ a) Inviting someone to follow another person's profile on social media (e.g., Twitter or Instagram), because you think they post interesting content.
- ☒ b) Revealing confidential secrets about a person's sexuality online.
- ☐ c) Spreading defamatory lies about someone in an attempt to destroy their reputation.
- ☐ d) All of the above.

A is incorrect. Informational privacy has to do with confidentiality, data protection, and secrecy of facts. It doesn't violate a person's informational privacy to transmit information about them that they have consensually made public. Social media profiles are either publicly accessible, or their owners consent to make their profiles accessible to selected people.

**B is correct.** Informational privacy has to do with confidentiality, data protection, and secrecy of facts. It would be a violation of someone's information privacy to reveal secrets that they want to keep confidential.

C is incorrect. Although it's wrong to spread lies about someone, it is not necessarily a violation of their informational privacy. For example: if someone tells your teacher that you cheated on a test when you did no such thing, they aren't spreading information you prefer to keep secret. Since you didn't cheat at all, you had no secret to keep.

D is incorrect as options A and C do not describe violations of informational privacy.

Choose one or the following answers.

- ☒ a) Under De George's criteria, it is morally obligatory to blow the whistle in this case.
- ☐ b) Under De George's criteria, it is morally permissible but not obligatory to blow the whistle in this case.
- ☐ c) Under De George's criteria, it is neither morally obligatory nor morally permissible to blow the whistle in this case.
- ☐ d) None of the above.

**A is correct.** Haugen fulfilled all 5 of De George's conditions for whistleblowing to be morally obligatory. (Actions that are morally obligatory are morally wrong not to do.) (1) She identified what she judged to be serious harm to the public caused by Facebook's products. (2) She reported her concern to her superiors at the company. When (3) her superiors took no remedial action, she (4) presented documented evidence to support her views and (5) she alerted governmental authorities that were in a position to make positive changes.

**B is incorrect.** Haugen didn't just fulfill the first 3 of De George's conditions that make whistleblowing morally permissible. She also fulfilled the 4th and 5th conditions, which make whistleblowing morally obligatory. (Morally permissible actions are not morally wrong to do. Morally obligatory actions are morally wrong not to do.)

**C is incorrect.** Haugen not only satisfied the first 3 of De George's conditions for whistleblowing to be morally permissible, but also the 4th and 5th conditions for whistleblowing to be morally obligatory. (Morally permissible actions are not morally wrong to do. Morally obligatory actions are morally wrong not to do.)

**D is incorrect.** Haugen satisfied all 5 of De George's conditions for whistleblowing to be morally obligatory. (Morally permissible actions are not morally wrong to do. Morally obligatory actions are morally wrong not to do.)

## Lams 11

1. \* Match each word in Column A with the correct type of IP protection in Column B.

*Pick up the corresponding answers*

<input checked="" type="checkbox"/> A new type of paper clip	Patent
<input checked="" type="checkbox"/> Formula for a popular soft drink	Confidential information
<input checked="" type="checkbox"/> A made-up word for a brand name e.g. Lazada or Reebok	Trademark
<input checked="" type="checkbox"/> Software code	Copyright

**Software code** is protected by copyright as it is WRITTEN with computer language that has its own syntax.

**A new type of paper clip** can be protected by a patent as it may present a NEW way to better secure multiple sheets of paper together.

**Formula for a popular soft drink** can be protected as a trade secret, i.e., confidential information.

**A made-up word for a brand name** (for example LAZADA or REEBOK) can be protected as a trademark to be used in business.

1. \* Which of the following is true about Denise's photograph?

Choose one of the following answers.

- ☐ It has no originality.
- ☒ It enjoys copyright protection as an independently created work.
- ☐ It is an infringement of Jean's photograph.
- ☐ It was made with a digital camera, and is therefore not fixed in a physical copy.

**It is an infringement of Jean's photograph.**

This is false. Ideas cannot be protected by copyright.

**It has no originality.**

This is false. Originality just means that it is not copy of another work.

**It was made with a digital camera, and is therefore not fixed in a physical copy.**

This is false. Digital forms are protected as tangible expression as they are capable of being perceived.

2. \* Assuming Denise was 25 years old when she took the photograph in 2021, and that she dies in the year 2060, how many years in total will the copyright in her photograph last?

Choose one of the following answers.

- ☐ 75
- ☒ 109
- ☐ 134
- ☐ 39

This is a matter of doing the math right!  $(2060 - 2021) + 70 = 109!$

3. \* What is the purpose of watermarking the image with the copyright notice?

Choose one of the following answers.

- ☐ A formality required for copyright to attach to the image
- ☐ A requirement for the copyright to be valid under international copyright law
- ☐ A requirement for registration at the Intellectual Property Office of Singapore
- ☒ Asserting copyright ownership of the image publicly

The purpose is only to assert copyright ownership of the image publicly. All other options do not exist. Remember that copyright automatically attaches to a protectable work as soon as the work is created, as provided by the Copyright Act.

4. \* Time passes, and it is now 2050. Jean has a heart attack and dies on 15 March 2050. When does the copyright in her photograph expire?

Choose one of the following answers.

- ☐ At the end of 2125
- ☒ At the end of 2120
- ☐ When Jean dies
- ☐ It becomes part of the public domain upon Jean's death

The copyright in Jean's photograph expires at the end of 2120, that is, 70 years after the year of Jean's death. That is when the photograph enters the public domain.

1. \* Which of the following statements is true about the law of contracts?

Choose one of the following answers.

- ☐ Contracts are valid only if a lawyer prepares them.
- ☐ A person can be forced, against his/her will, to agree to a contract
- ☐ All contracts must be approved by a government official to be valid.

✓ ☒ Contracts can be made verbally as well as in writing.

**All contracts must be approved by a government official to be valid.**

This is false. Contracts are private agreements between parties, which do not require approval from government authorities. However, if you are contracting with a government authority, it may prescribe the FORM in which a contract is drafted.

**A person can be forced, against his/her will, to agree to a contract**

This is false. The law of contract provides that agreement to a contract is voluntary. If there is no voluntariness, a contract may be set aside/cancelled.

**Contracts are valid only if a lawyer prepares them.**

This is false. Lawyers are only involved if one or more of the parties wish for a lawyer to review the terms of the contract or its context for legal risk and clarity.

1. \* What does the following statement from a social media platform Terms of Service mean?

"...you grant us a non-exclusive, perpetual, sub-licensable, royalty-free, worldwide license to use any IP content that you post..."

Choose one of the following answers.

- ☐ The licensee owns any content that is posted by the licensor on the platform.
- ☐ The licensee is able to assign any content posted by the licensor.
- ☐ The licensee is the only entity that can extensively use the content.

✓ ☒ The licensor remains the owner but grants the platform a very extensive scope of use for the licensed content.

**The licensee owns any content that is posted by the licensor on the platform.**

This is incorrect. No language as to transfer of ownership of the content

**The licensee is the only entity that can extensively use the content.**

This is a non-exclusive license which means the owner of the content can use the same content for other purposes and the platform cannot object.

**The licensee is able to assign any content posted by the licensor.**

This is incorrect. There is no language granting the platform the ability to assign posted content, i.e., give away the ownership of the content to someone else.

## Lams 12

1. \* Select all that apply to the following statement.

Blockchain technology is a public database or public ledger based on a combination of technologies including...

Choose at least one answer.

- ✓ ☒ Cryptography
- ✓ ☒ Consensus protocols
- ✓ ☒ Peer-to-peer network communication
- ✓ ☒ Smart contract

Blockchain is a public database (or public ledger) based on a combination of technologies for data exchange, processing, and storage, including cryptography, distributed consensus protocols, peer-to-peer network communication technologies, and smart contract.

2. \* What information is recorded in the blockchain of Bitcoin? Select all that apply.

Choose at least one answer.

- ✓ ☒ Timestamp
- ✓ ☒ Hash value of previous block
- ✓ ☒ Nonce
- ✓ ☒ Merkle tree root of transaction information

All of the above can be recorded as information in the blockchain of Bitcoin.

1. \* Why is consortium chain useful in supply chain finance services? Select all that apply.

Choose at least one answer.

- ☒ Consortium chain is best suited for organization collaborations.
- ☒ Supply chain finance requires coordination of multiple parties.
- ☐ Consortium chain can potentially replace the financial intermediary.
- ☒ The falsified contract makes it difficult to verify the trading relations and consortium chain can help to alleviate this problem.

Consortium chain cannot replace financial intermediary.

## Lams 13

1. \* Which of the following is NOT the reason that leads to the renaissance of Artificial Intelligence in recent years?

Choose one of the following answers.

- ☐ Access of high performance computing machines
- ☐ Advancement made in more sophisticate algorithms
- ☐ Availability of large amount of data
- ☒ Interest in the concept of Artificial Intelligence

The concept of AI is not new, there is always interest but not much progress was achieved mainly due to the lack of computing power and the other listed factors.

1. \* Which of the following statement is NOT correct?

Choose one of the following answers.

- ☐ Deep learning belongs to the family of Machine Learning.
- ☒ Machine learning always needs labelled data for its training.
- ☐ Supervised learning makes use of labelled data.
- ☐ Unsupervised learning does not need labelled data.

Machine Learning can be of unsupervised learning that doesn't need labelled data.

1. \* Which of the following is TRUE about deep learning?

Choose one of the following answers.

- ☐ Deep learning is based on the concept of artificial neurons
- ☐ Deep learning consists of multiple hidden layers of neural networks
- ☐ Deep learning needs data to develop its algorithm
- ☒ All of the above

1. \* Which one of the following will be most challenging to achieve with AI technology?

Choose one of the following answers.

☐ Monitoring engine condition

☐ Predicting stock price

✓ ☒ Writing a poem

☐ Managing product inventory

Writing a poem involves human emotions and feelings that are still hard to incorporate in AI - at the moment. The other listed options all have ready data that can be used to train the Machine Learning based AI .

2. \* Which of the following describes how social media platforms make use of AI for product marketing?

Choose one of the following answers.

☐ Monitoring the websites that you visit

☐ Monitoring the items that you search

☐ Monitoring your 'Likes'

✓ ☒ All of the above

3. \* Which could be the reason for using the AI technologies such as Deepfake?

Choose one of the following answers.

☐ To influence stock price

☐ To influence elections result

☐ To undermine reputation of a product

✓ ☒ All of the above