

Quiz & Midterm Review

805-182 Computer: The Internet and Society

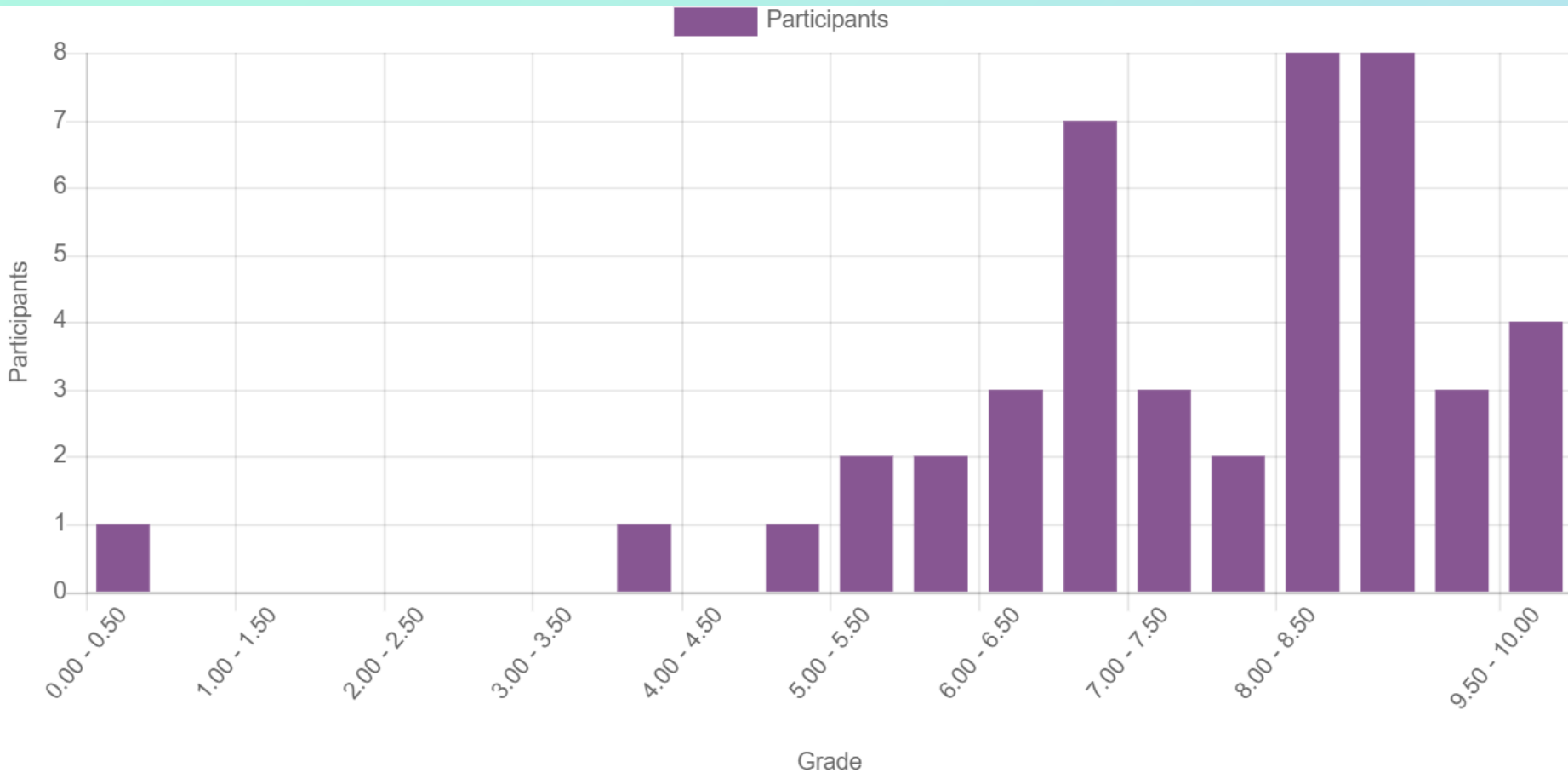
Your quiz score is available on PSU LMS

Agenda

- Quiz Statistics
- Reminder about cheating policy
- Quiz grading rubric
- Midterm tips

Quiz Statistics

- 2 out of 47 students did not take the quiz
- Average: 7.26/10



Reminder: Zero-Tolerance Policy for Cheating!!

- I have noticed a couple of cheating behaviors in this quiz
- (Around 6-7) students *with concrete evidence* of cheating behaviors
- You should know yourself if you cheated the quiz (even cheating 1-2 questions is considered cheating).
- **Second chance:** contact me by TODAY for the quiz questions that you cheated (e.g., copied from other students'). I will ungrade those questions (resulting in 0 point only for those questions) and no further punishment.
- If I don't hear from you by the end of today, I will contact you tomorrow and demand for explanation. **YOU WILL BE PUNISHED IN THIS CASE.**

Moving Forwards about Cheating

If you cheated this quiz but were not contacted by me, **it does not mean you are safe**. It means I do not have concrete evidence for you. *BUT, I'll pay very close attention to you for the midterm and final.* **If you were caught cheating for the exams, you will be punished severely. No more exception!!!!**

Question 1: Which of the following is a volatile memory: RAM or storage unit? Justify your answer.

To answer this question, you need to know:

- What it means for memory to be “volatile”
- Whether RAM and storage unit are volatile

Grading

- 0.5point if your answer contains the description of volatile memory without explicitly mentioning the word “volatile” in that description
- 1point if your answer *clearly* states that RAM is volatile because its content is erased upon the computer’s reset

Question 1: Good answers (get full point)

- **RAM**, because it will lose its memory content when power is off
- Volatile memory refers to computer memory in which the stored data will disappear when the system is interrupted. **RAM cannot retain data when the power is off**. If you need to save data, you must write them into a long-term storage

Question 1: Not good answers

- Improper justification (0 point):
 - My teacher said RAM is volatile
- Full explanation of RAM **but does not specifically say which property refers to “volatile”** (0.5 point):
 - RAM usually uses the temporary storage medium. However, **RAM cannot save data when power is off**. If you need to save it, you must write it to long-term memory, such as a hard disk. Therefore, the indenter is sometimes referred to as "variable memory". RAM memory can be further divided into static RAM (SRAM) and dynamic memory (DRAM). Because DRAM is cheap per unit capacity, it is widely used in the main memory of the system

Question 2: Explain why a webcam is considered an input unit.

To answer this question, you need to explain:

- What an input unit is
- What kind of input data makes a webcam an input unit

Grading

- 0.5point if your answer contains **a correct definition of an input unit.**
- 1point if your answer *clearly* mentions that **a webcam's input data is video**

Question 2: Good answers (get full point)

- Because a webcam has video as **input data**.
- **Video signal** of webcam **inputs to the host**. As the input unit, it can capture the **video signal**.
- It can scan, process **human's face or things in front of the camera** and **input them into the computer**.

Question 2: Not good answers

- No definition of input units (0 point):
 - A webcam enables live video communication over the internet. Webcams are often integrated within computers. Webcam can realize monitoring more easily, especially remote monitoring, and it is easier to build and maintain.
- Define input unit but no clear mentioning of webcam's input data (0.5point):
 - Webcam is a kind of video input device which is widely used in video conference and real-time monitoring. **Input devices are used to input raw data and programs that process these numbers into a computer.** The computer can receive a variety of data, such as graphics, images, sounds, etc., which can be input into the computer through different types of input devices for storage, processing and output.
 - Webcam can **input data(or command) to computer.** When people use webcam the system will get some information, data, format and so on. So webcam is an input unit.

Question 3:

Microsoft Office 365's requirement specification is as follows:

- CPU: 1GHz, RAM: 2GB, Hard disk space: 3GB, Display: 1024 x 768

Suppose you want to install Microsoft Office 365 on your computer that has the following specification:

- CPU: Intel Core i7 2.4GHz, RAM: DDR2 2GB, Hard disk space: 2TB, Display: 1920 x 1080

Based on this information, answer two questions:

1. Can your computer install Microsoft Office 365? Justify your answer.
2. Would it be okay to use your computer to run Microsoft Office 365 on real applications? Justify your answer.

To answer this question, you need to know:

- 1) How to check whether a specific computer passes software requirement
- 2) In reality, Microsoft Office 365 is not the only software running on a computer. So your computer has to have some free RAM to run other programs. Plus, TB (= 1000GB) > GB.

Question 3: Good answers

1. Yes, it can. because the computer meets the requirement of Office365.
2. But the RAM size of the computer is too close to the requirement of the Office 365, so the Office 365 will not run fluently.

Question 4

Suppose your instructor creates a teleconference program similar to Zoom, called OakProgram, and sells it to PSU Phuket Campus with the following conditions regarding licensing:

- There is no restriction on which computers can install OakProgram
- OakProgram can only be used inside PSU Phuket Campus
- Only 100 computers can use OakProgram at the same time

What types of licensing does OakProgram have? Justify your answer. If there are multiple licenses that apply to OakProgram, answer and justify all of them.

To answer this question, you need to know different type of software license:

- Site license
- Concurrent-use license
- Multiple-user license
- Single-user license

To get a full point, your answer must include two correct licenses, and is correctly justified. Partial credit is given if your answer is partially correct.

Question 5: How can you run Windows OS on a mac book?

- Your answer must lead to a way to run Windows OS on a mac book
- Good answer:
 - Mention bootcamp, crossover or VM (Virtual Machine)
- Not good answer (0 point):
 - Download the Windows OS and format the USB drive into the drive

Question 6: What is the main role of DNS Server?

Answer: Convert the domain name to its corresponding IP address.

Question 7: Describe one real-life scenario where using a VPN can benefit you. Explain.

To answer this question, you need to:

- Know advantages of VPN
- Describe a scenario that will be benefited by VPN

0.5point if:

- Your answer only contains the description and advantages of VPN but not a real-life scenario
- Not clear from your answer why your scenario cannot be achieved WITHOUT using VPN

Do you really need to use VPN to access LMS or Kahoot?

Question 8: List step by step how to use WeChat to buy a product without using cash.

To answer this question, you need to know what type of e-payment technologies used in WeChat

- QR code payment (either scan seller's QR code or show your QR code)
- In-app payment (by inserting seller's ID, email, etc.)
- Other methods for payment?

You get a full point if your answer must correspond to one of the above technologies.

Question 9: List at least 2 features that make smart door locks "smart".

To answer this question, you need to know:

- Difference between a smart device and a traditional device

You get full points if your answers contain 2 features that:

- Traditional door locks do not have
- Smart door locks have

Question 10: Between LAN, MAN and WAN, which communication technology is best suited for your home network? Justify your answer.

To answer this question, you need to know:

- Difference between LAN, MAN and WAN
- Characteristics of a home network

Grading

- 0.5 point if you can explain **difference between LAN, MAN and WAN** or correctly describe LAN *but* does not say **a characteristic of a home network**
- 1 point if your answer contains both LAN-MAN-WAN's difference and **a characteristic of a home network**

Question 10: Good answers

- Unlike WAN and MAN, LAN has a small area coverage. A home network is usually small and thus works best with LAN.
- LAN is a computer communication network in which all kinds of computers and data communication equipment are interconnected in a small area. MAN, which is basically a large LAN, usually uses the technology similar to LAN. WAN is a kind of network which spans a large area. Because the range of home is relatively small, the home network is generally selected in LAN.

Question 10: Not good answers

0.5 point

- LAN: Local Area Network computers are relatively close. MAN: metropolitan area network within a building or adjacent. WAN: wide area network is very big, internet is also considered WAN. So choose LAN.
- LAN. I think LAN is a communication network in which various computers and data communication devices are interconnected in a small area. Then the data transmission is green and high (up to 1000Mbps) and the geographical coverage is high (0.1-25 km); Low bit error rate; Cheap price; Topology of LAN Common topology of LAN includes star, ring, bus and tree.

Midterm Reminder

- Next Wednesday, August 5, 2020, 1:30pm-4:30pm
- Online Midterm on PSU LMS under “Exams”
- 10 questions. 2 points each. 20 points total. Each question may contain up to 2 sub-questions.

Useful Tips for Midterm

- Same format as quiz but a bit longer and a bit harder
- I expect you to finish the quiz in one and a half hour. 3 hours just in case of technical difficulties
- If for some reasons, you cannot submit your midterm on LMS, you MUST notify me and send a document containing your answers to my email (norrathep.r@phuket.psu.ac.th) or to my WeChat.
- Course material: <https://www.norrathep.com/teaching/805-182-1-63/>
- I will be available during the entire duration of the midterm. **Contact me immediately during the exam if you have questions regarding the midterm or you encounter problems (e.g., your internet is down or your computer/phone does not work).**

Useful Tips for Midterm

- Before submitting the midterm, **double check your answers** in your last attempt to ensure that:
 - Your answers are correct
 - They contain English answers

Midterm Instructions (not yet finalized)

1. The exam lasts exactly 3 hours (13:30-16:30 August 5, 2020).
2. Each question is worth 2 points; there may be multiple sub-questions within a question. 20 points total. 20% of your entire grade.
3. This exam is open-book and open-internet. This means you may use any lecture materials or browse any websites during the exam.
4. However, you MAY NOT ask questions on web forums or any websites during the exam. Doing so is considered cheating behavior.
5. If you get answers from websites, you MUST properly cite such websites. (Mentioning website URLs in your answer is okay and enough).
6. If the question asks you to "justify your answers", you have to explain your reasoning for your answer. Answer without justification receives 0 point.
7. You MAY NOT discuss (personally or online) with other people throughout the whole duration of this exam.
8. If you are not confident with your English writing skills, answer in BOTH CHINESE and ENGLISH. I will first grade your exam based on your English answer. And if you lose points because of language issues, you may appeal and I will grade it based on your Chinese answers.
9. You will lose 20% of the full point from a question if your answer to that question is in only Chinese (without accompanying with an English answer).
10. You may attempt and submit your answers as many times as you want but I will grade only your last attempt.
11. **Any form of cheating is NOT allowed and will not be tolerated. Cheating students will immediately fail the quiz and this course and will face severe punishment by the university.**

Question?