

A-3 Give two common ways to prove/make probable that the person making a card-not-present trans-action is in physical possession of the card. Compare the two alternatives in terms of security.

Grading: 0.8

Motivation:

A well put answer that goes well with the lecture slides on Electronic Payments. However, the comparison between the two ways could have been more clear.

A-7 Is SSL required in SET? Motivate your answer.

Grading: 1.0

Motivation:

A short and correct answer. Matches well with the information on the slides from “Electronic Payments, part 1”.

A-10 What two general ways are there to enroll in VbV (3D Secure) and which would you say is better?

Grading: 1.0

Motivation:

Good answer. I agree that it is better to enroll beforehand and your motivation is very true. You should proofread your texts in the future. There are a lot of spelling mistakes.

A-19 In the untraceable E-cash protocol in the lecture notes, the serial number of a coin is a signature from the bank, i.e., produced using the bank’s private key. Why (in a technical sense) can the bank not map this serial number to Alice?

Grading: 1.0

Motivation:

Very good answer! It is not too long, and easy to read. Could have mentioned “blind signatures” as it is the name of the concept that you describe. The answer corresponds well with the lecture slides.

A-20 How is Alice’s identity revealed if she double spends a coin in the untraceable E-cash scheme?

Grading: 1.0

Motivation:

Once again many spelling errors, but the answer is good. Similar answer can be found here: <https://en.wikipedia.org/wiki/Double-spending>

A-23 In PayWord, a unit could be, e.g., one cent (or one öre), so even though the payments are “micro”, the hash chains could be pretty long. Could this pose a storage problem to Alice, who has to generate the entire chain when (before) she makes her first purchase from a merchant?

Grading: 1.0

Motivation:

Good and clear answer. It agrees with the information on “Electronic Payments, part 2”.

A-28 Compare the PayWord protocol and the Peppercoin-like protocol in the lecture notes from the point of view of the customers, both in terms of what they pay, and in terms of what they need to compute to make a purchase.

Grading: 1.0

Motivation:

A good comparison, both in terms of what customers pay and what they need to compute. The answer goes well with the slides in “Electronic Payments, part 2”.

A-34 How is the difficulty in Bitcoin block hashing adapted so that it (almost) always takes about 10 minutes for the system to produce a new block, regardless of the computational power that enters the system?

Grading: 0.7

Motivation:

The answer could have been a bit more further developed. It would for example be interesting to know why it takes 10 minutes for the system to produce a new block. You can read more about it here: <https://medium.com/unblockchain/why-bitcoin-payments-take-10-minutes-c6f37f424b4f>

Total score: 7.5