Solutions to Week 7 Assignment

1. What is the relationship between Usability and Security?
    a. Directly proportional, i.e, more usable is necessarily more secure
    b. Inversely proportional, i.e, more usable is usually less secure
    c. No relation, they are both independent
    d. None of the above

2. Which of the following can be used to make secure systems more usable?
    a. Making use of invisible security, i.e. make it "just work"
    b. Making security more complex
    c. Making security more intuitive
    d. Making security less relatable

3. Which of the following is/are true about the expectations of security experts and users regarding security?
    a. Security experts want to keep the bad guys out
    b. Security experts want to make security less complex
    c. Users don't want to get locked out
    d. Users don't care if they get locked out

4. What does the following statement mean in the context of the lecture?
    "Humans are the weakest link"

    a. Humans don't form strong social connections
    b. Most security breaches are attributed to "human error"
    c. Humans are mentally weak while tackling problems
    d. Humans are emotionally weak

5. The system 'Grey' discussed in the lectures was used for which of the following purposes?
    a. Messaging someone remotely
    b. Data collection
    c. Granting access to doors remotely
    d. Tracking someone remotely

6. Which of the following techniques can be used to effectively train users against phishing attacks?
    a. Learning science principles

b. Teachable moments
c. Fun activities
d. All of the above

7. Consider the following statement:

   *"Users educated with embedded training are **more prone to phishing attacks** than those who are educated by security notices/catalogues"*

   a. True
   b. False

8. Consider the following statement:
   "Phishguru warns a user about phishing scams as soon as the user clicks on a malicious link"
   Which of the following embedded training principles is used by Phishguru in the above mentioned scenario:
   a. Story-based agent principle
   b. Contiguity principle
   c. Learning-by-doing principle
   d. Personalization principle

9. "*Duolingo is a very popular language-learning platform. It has an Owl as its mascot character which walks one through the lessons and uses a friendly and interactive approach to learn a popular language.*"
   Which of the following embedded training principles is used by Duolingo?
   a. Story-based agent principle
   b. Contiguity principle
   c. Learning-by-doing principle
   d. Personalization principle

10. Why do humans fall for phishing?
    a. Not motivated to pay attention
    b. Mental models inconsistent with reality
    c. Need actionable advice they can understand
    d. All of the above

11. Which of the following questions would you ask in a task analysis on a high fidelity prototype?
    a. Which functionality did the user find particularly difficult
    b. What does the user think about the colour scheme of the application
    c. Questions about the layout and design of certain UI elements
    d. Will the application be useful to the user in his day to day life

12. You would want to receive inputs regarding the intuitive nature of buttons and icons in your application in:
    a. Task analysis on a Low-Fidelity prototype
    b. Contextual Inquiry
    c. User survey
    d. Task analysis on a High-Fidelity prototype

13. Consider the following statement:
    "After doing task-analysis on a low fidelity prototype, one can assume that all elements of the UI design will be intuitively clear to the user."
    a. True
    b. False

14. Consider the following statement:
    "The high fidelity prototype is almost as good as the final product, therefore we should not incorporate too many changes to it."
    a. True
    b. False

15. The set of inferences received from performing task analysis on low-fidelity and high-fidelity prototypes were:
    a. Almost the same
    b. Qualitatively different
    c. Not feasible to be incorporated
    d. All of the above