

Tutorial Letter 201/1/2018

Human-Computer Interaction 1

INF1520

Semester 1

School of Computing

IMPORTANT INFORMATION:

This tutorial letter contains the answers for assignment 1 semester 1.

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MEMORANDUM

1 INTRODUCTION

Dear student

This tutorial letter contains information about the answers to assignment 1 semester 2.

By now you should have received the following tutorial letters:

TUTORIAL LETTERS	PRESCRIBED MATERIAL
INF1520/101/3/2018 INF1520/201/1/2018	INF1520 Study Guide – TUT102 Units 1 to 5

Tutorial letters can also be downloaded from myUnisa or www.osprey.unisa.ac.za, which is the official web site of the School of Computing. <https://my.unisa.ac.za> also offers services to students but the lecturers do not have direct control over the information provided there.

INF1520 Team

2 ANSWERS TO ASSIGNMENT 1 INF1520

Semester 1 Assignment 01

Due Date: 12 March 2018

Unique assignment number:

Study material: Study Guide Units 1 and 2

Contribution of mark: 20% of semester mark, i.e. 4% of final mark

Assignment**01****[20]****1 mark per question.****Question 1**

Which of the following statements about the early history of computing are not true?

- A. HCI was adopted in the mid-1930s to denote a new field of study concerned with studying and improving the effectiveness and efficiency of computer use.
- B. Charles Babbage (1791–1871) was a USA mathematician who designed a Difference Engine.
- C. Herman Hollerith (1860–1929) developed a computational device to calculate general statistics for immigrant population.
- D. Colossus (1943) developed the first truly interactive computer, which allowed user to type input through a keyboard.
- E. In 1945 Vannevar Bush, published an article on the 'Bush's idea' of the Mermex system.

Options:

- 1. **A and B** p7
- 2. B and C
- 3. A, B and C
- 4. A, B and D
- 5. D

Question 2

The first computers developed for the "man on the street" occurred in the early 1910s. True or false?

- 1. True
- 2. **False** p11

Question 3

Which of the following are true about Facebook?

- A. is a social networking website that was started in February 2004
- B. Mark Zuckerberg was 10 years old when he started Facebook
- C. allows users to create personal profiles, photo albums and information 'walls' to share happenings in their own lives with other people
- D. anyone older than 12 can become a Facebook user.

Options:

- 1. A and B
- 2. A, B, C and D
- 3. B and C
- 4. A, C, and D p14
- 5. A, B and D

Question 4

Who said the following: "No, Steve, I think it's more like we both have a rich neighbour named Xerox, and you broke in to steal the TV set."

- 1. JW Mauchly
- 2. Steve Jobs
- 3. Steven Wozniak
- 4. Herman Hollenrith
- 5. Bill Gates p18

Question 5

Computer systems that are embedded in everyday objects and are part of the environment are known as

- 1. distributed systems
- 2. ubiquitous computing
- 3. Wi-Fi
- 4. the internet
- 5. mobile computing

Question 6

Mobile and ubiquitous computing will remain a focus area for many years to come. Indicate which off the following major transformations in computing will affect the field of HCI increasingly in the next decade:

- A. the changing notion of 'the interface'
- B. decreasing dependency on technology
- C. hyper-connectivity
- D. changes in the means of and reasons for recording information.

Options:

- 1. A and B
- 2. A, B, C and D
- 3. B and C
- 4. A, C, and D p17
- 5. B and D

Question 7

Which of the following definitions of HCI are correct?

- A. HCI is a 'set of processes, dialogues, and actions through which a human user employs and interacts with a computer'.
- B. HCI is a 'discipline concerned with the design, evaluation, and implementation of interactive computing systems for human use and with the study of major phenomena surrounding them'.
- C. HCI is 'the study of people, computer technology, and the ways these influence each other'.
- D. HCI is concerned with studying and improving the many factors that influence the effectiveness and efficiency of computer use.

Options:

- 1. A, B, C and D p18
- 2. A, B and D
- 3. B, C and D
- 4. A and B
- 5. A, B and C

Question 8

Human-Computer interaction is about designing for people (users). HCI is only about the display. True or false?

1. True
2. False p20

Question 9

_____ has traditionally involved the design of the 'total working environment' which included the height of the chair, table, etc.

1. user experience
2. ergonomics p18
3. interaction design
4. accessibility
5. availability

Question 10

An aspect of colour that describes the perceptual attributes associated with elementary colour names is called

1. colour hue p25
2. colour lightness
3. colour saturation
4. colour migration
5. colour deficit

Question 11

Human information processing consists of three interaction systems: _____.

- A. perception, cognition and motion systems
- B. perceptual, cognitive and motor systems
- C. perception, cognition and physiology
- D. short-term memory and information processing

Options

1. A
2. B p24
3. C
4. D

5. none of the above

Question 12

Short term memory can store information or events from the _____ past.

1. immediate p26
2. long ago
3. distance
4. interactive
5. none of the above

Question 13

Which of the following can be used as guidelines by employers to influence the work environment of employees?

- A. visual display
- B. keyboard and mouse use
- C. mirrors
- D. chairs and office furniture

Options

1. A and B
2. B and C
3. A, B, and D p 29
4. A and B
5. D

Question 14

Which one of the following statements are good examples to resolve employee's absenteeism because of time spend at chiropractor?

1. replace keyboard
2. provide proper chairs and office furniture that support back and promotes posture at the computer p29
3. use of a wrist support
4. use a secretary

5. none of the above

Question 15

Preece et al. (2007:483) define _____ as “the degree to which an interactive product is usable by people with disabilities.”

1. usability
2. user experience
3. **accessibility** p30
4. cognition
5. none of the above

Question 16

Which of the following statements are true for users with vision impairments:

- A. visually impaired people mostly experience difficulties with output
- B. visually impaired people also experience difficulty with the mouse and other input devices
- C. it is easy for them to use normal cell phones
- D. enlarging portions of a display or converting display to Braille or voice output can be done with hardware and software that is easily obtainable

Options:

1. **A, B and D** p31
2. A, C and D
3. A and B
4. A and C
5. C

Question 17

People tend to make errors routinely. There are several forms of human errors or mistakes. Which of the following can be classified as mistakes typical made by humans?

- A. incorrect plans such as forming wrong goals
- B. performing the correct action with relation to a specific goal
- C. adopting unsafe working practices

D. mistakes due to lack of training

Options:

1. B
2. A, C and D p39
3. A and B
4. A and C
5. C

Question 18

Is the following **TRUE** about description errors? Description errors occur when instead of the intended activity, you do something that has a lot in common with what you wanted to do.

Options:

1. True 39
2. False
3. Not applicable.

Question 19

User experience refers to

- A. how people feel about a product p19
- B. one cannot design a user experience but can design for user experience p19
- C. designing products so that people can get frustrated (not correct)
- D. designing products to support the way people communicate p19 forms part of interaction follow communication on discussion forum

Options:

1. A and C
2. A, B and C
3. A, B and D
4. B, C and D
5. A, B, C and D

Question 20

How can human errors be prevented?

- A. never think that you will be able to engineer out human error
- B. it is possible to engineer decision support systems that provide users with guidance and help during performance of critical operations
- C. control and limit the scope of human intervention
- D. improve working practices.

(all 4 correct although no option to select all – posted on discussion forum)

Options:

- 1. A and B
- 2. A and C
- 3. A and D
- 4. **A, B and C** p40
- 5. A, B and D

End of Assignment 01