## 02JSKOV - Human Computer Interaction

Written Exam - 2020-02-10

## Closed-book exam: no notes or other material are allowed. Allowed Time: $\mathbf{6 0}$ minutes.

The responses should be easy to read (write clearly!) and reasonably short (around 5-10 lines long).
1.

Consider two identical versions of a web page which differ for the following buttons, only:

## SIGN UP LEARN MORE

(a)
(b)

After conducting an online $A / B$ test, where each visitor is randomly shown one of the two versions of the page, and counting how many people actually sign up on the website, we get the following data:

|  | "SIGN UP" Button | "LEARN MORE" Button |
| :--- | :---: | :---: |
| People did sign up | 20 | 45 |
| People did not sign up | 80 | 70 |

With this information, write a null hypothesis, run the Chi-Square Test, and properly report whether the change of the button has had an impact on the sign-up rate.
2.

Define what a "storyboard" is, how it can be realized, its benefits and drawbacks.
3.

Describe what is a "heuristic evaluation" and how you would conduct it with multiple evaluators testing a single webpage.
4.

List the categories in which contemporary Voice User Interfaces can be divided, with a major advantage or disadvantage for each one.
Chi-Square Table

| df\area | .995 | .990 | .975 | .950 | .900 | .750 | .500 | .250 | .100 | .050 | .025 | .010 | .005 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\mathbf{1}$ | 0.00004 | 0.00016 | 0.00098 | 0.00393 | 0.01579 | 0.10153 | 0.45494 | 1.32330 | 2.70554 | 3.84146 | 5.02389 | 6.63490 | 7.87944 |
| $\mathbf{2}$ | 0.01003 | 0.02010 | 0.05064 | 0.10259 | 0.21072 | 0.57536 | 1.38629 | 2.77259 | 4.60517 | 5.99146 | 7.37776 | 9.21034 | 10.59663 |
| $\mathbf{3}$ | 0.07172 | 0.11483 | 0.21580 | 0.35185 | 0.58437 | 1.21253 | 2.36597 | 4.10834 | 6.25139 | 7.81473 | 9.34840 | 11.34487 | 12.83816 |
| $\mathbf{4}$ | 0.20699 | 0.29711 | 0.48442 | 0.71072 | 1.06362 | 1.92256 | 3.35669 | 5.38527 | 7.77944 | 9.48773 | 11.14329 | 13.27670 | 14.86026 |
| $\mathbf{5}$ | 0.41174 | 0.55430 | 0.83121 | 1.14548 | 1.61031 | 2.67460 | 4.35146 | 6.62568 | 9.23636 | 11.07050 | 12.83250 | 15.08627 | 16.74960 |

