Statistical Computing Master Data Science



Winter Semester 2017/18

Prof. Tim Downie

Information for the Practical Test — 4. December 2017

• The Test:

- consists of three questions each with multiple parts.
- starts at 14:15 and lasts an hour. Please arrive on time.
- is in the normal room A 326 L
- is primarily to test your competence in using R. Some elementary statistical questions might be asked.
- You may use your own laptop or the lab computers for this test. You require internet access to Moodle.
- You may bring your course notes and your own material.
- You may use the R help pages or make use of internet searches. Be aware that this
 could cost time.
- The questions will be handed out on a paper worksheet. You use R or RStudio to answer the questions and hand write your answers on the worksheet.
- You will also hand in your script file via Moodle.
- It is not allowed for you to send messages of any form or to communicate with others. You should ask the lecturer if you have any queries. Anyone found breaking this rule will get 0 marks.
- A model solution counts 15 marks to your course total. There is no minimum pass mark for the Test. The preliminary and finishing off sections together carry 1 point.
- On the next page is a list of commands and subjects which is considered to be import6ant for the Test. The list is not exhaustive, other commands might be in the Test.

```
<-
+, - *, /, ^, %*%
==, <, <= , > , >=
!=, !(), &, |,
a[1], a[1:2], a[c(2,5)], a[-3], M[1,], M[,c(2,6)]
datf[,"Varname"], datf[1:5,6], datf$Varname[1:4]
c, :, seq, rep
sum, cumsum, length, table, dim, max, min,
matrix, t, names, apply, tapply,
mean, median, quantile, summary, cov, cor,
abs, exp, log, sqrt, diff, cut
subset, which
plot, hist, barplot, boxplot, stripchart, abline,
rnorm
set.seed
t.test
```

load, read.csv, read.csv2, setwd,