Example how the exam could look like...

Practical example (9 points):
Create an empty folder named "LastnameFirstname" (substitute your name) and download the data from the examination-section in the Moodle course. Copy any code from the laboratory/toolbox that you want to use in your solution into that folder (or a subfolder thereof).

i) Create a script called `doit1.m` that will contain all necessary code. The script MUST NOT contain any unnecessary code. For each step in your solution, provide a short in-line documentation (1-2 lines) explaining what is done and why(!). Use a relative path to include your toolbox subfolder.
ii) load the data: use `load data`; for this purpose and seed the random number generator by issuing the command `rng(0)`.
iii) (1 point) use stratified sampling to generate training and validation set. Use 60% for training.
iv) (1 point) apply any preprocessing considered useful/necessary and indicate your choice in the in-line documentation.
v) (2 points) apply a PCA to reduce the data to 2 dimensions and output a plot of those 2 principal components. Indicate the percentage of variance covered by the 2 dimensions in the title of the plot.
vi) (2 points) train a SVM classifier and report the recall and precision of all classes obtained on the validation data.
vii) copy the script `doit1.m` into a new file `doit2.m` and change the code, so that no plot of the data is generated.
viii) (3 points) now optimize the classifier in `doit2.m` by manually changing the parameters in such a way that you achieve a recall for class 1 (specificity) of at least 96.5%. Take care that the recall for class 0 (sensitivity) is not lost completely (> 30% at least). Which parameters you choose for achieving this goal is completely up to you.
ix) copy `doit2.m` into a new file `doit3.m` and apply any classifier optimization and or dimension reduction of choice to achieve a high average F1 score. (1 extra point if the average F1 score is over 95%)

When you are done, zip the "LastnameFirstname" folder and upload it to Moodle.
INFO: Make sure that doitX.m does not use any scripts or functions that are not contained in your folder and that subfolders (if you have some) are added as relative paths.