Assignment 02 Rubric

Q1.
- 1 Marks if the implementation is as desired
- 1 Mark if the code is flexible (i.e., number of filters, layers, etc can be passed as command line arguments)
- 1.5 marks for correctly computing the number of computations in the network.
- 1.5 marks for correctly computing the number of parameters in the network.

Q2. Code checked (The total marks will be capped at 10)
- 2 Marks for accuracy v/s created plot
- 2 Marks for parallel coordinates plot
- 2 Marks for correlation summary table
- 0.5 Marks if they have tried different filter sizes
- 0.5 Marks if they have tried different ways of organising filters across layers (same number of filters in all layer, doubling in each subsequent layer, halving in each subsequent layer, etc)
- 0.5 Marks if they have tried data augmentation
- 0.5 Marks if they have used dropout
- 0.5 Marks if they have used batch normalisation
- 0.5 Marks for any other hyperparameters that they tried
- 2 Marks for any strategy for reducing the total number of experiments

Q3. Code checked
3 Marks for each of the following with the total capped at 15 marks
- Some comment on how increasing/decreasing/not changing the number of filters across layers helps/does not help
- Some comment on how increasing/decreasing the size of the filters within or across layers helps/does not help
- Some comment on whether batch normalization helps or not
- Some comment on whether dropout helps or not
- Some comment on the size of the dense layer
- Some comment on the use of different learning algorithms
- Some comment on the use of different learning rates
- Some comments on the use of different batch sizes
- Some comment on whether data augmentation helped or not
- Any other meaningful/insightful comments

Q4. Code checked
- 3 Marks if the accuracy is > 40%
  2.5 Marks if the accuracy is > 35% but < 40%
- 2 Mark if the accuracy is < 35%
  1 Mark if the 30 images are plotted correctly

- 0.5 Marks if only the filters are plotted
  1 Mark if the filters are plotted and there is some commentary on what the filters learned

Q5.
- 1 Mark for each of the 10 images if you can see some interesting patterns in the image
- 0.6 Marks for each of the 10 images if you cannot see any interesting patterns in the image

Q6. Code checked
Marks deducted
- 2 Marks if the code is written without any comments
- 5 Marks if you cannot download and run the code by following the README file as it is.

Part B
Q1.
- 2 Marks if they have addressed the issue of dimension mismatch.
- 2 Marks if they have addressed the issue with the last layer.
- 1 Mark if the implementation is modular and allows easy replacement of different models

Q2.
- 5 Marks pre-training and fine-tuning
- 3 Marks only fine-tuning

Q3.
3 Marks for each of the following with the total capped at 15 marks
- Some comment on the comparison between different models (e..g, InceptionNet v/s ResNet)
- Some comment on the comparison between different finetuning strategies (fine tuning full network v/s only some layers)
- Some comment on the comparison between finetuning and training from scratch
- Any other meaningful comment w.r.t. learning rate, batch size, learning algorithm, data augmentation.

Q4.
Marks deducted
- 2 Marks if the code is written without any comments
- 5 Marks if you cannot download and run the code by following the README file as it is.

Part C
Q1.
- 12 Marks if the demo looks interesting
- 3 Marks if the chosen application has social relevance

Self Declaration and commits are being checked.