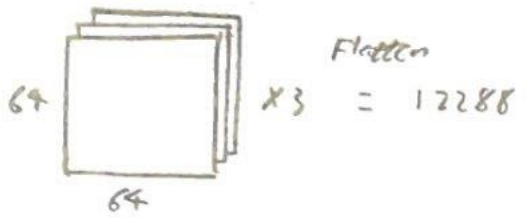
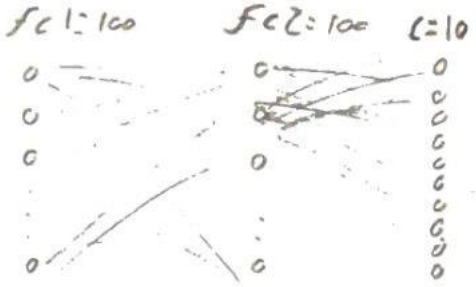
1. On paper





weights = $(12288+1)\cdot 100 + (100+1)\cdot 100 + (100+1)\cdot 10$
$\approx 1,2\ M$

tt samples vale = $5 \cdot 1,2\ M = 6\ M$

2-4

```
_________________________________________________________________
 Layer (type)                Output Shape              Param #
=================================================================
 flatten (Flatten)           (None, 12288)             0

 dense (Dense)               (None, 100)               1228900

 dense_1 (Dense)             (None, 100)               10100

 dense_2 (Dense)             (None, 2)                 202

=================================================================
Total params: 1,239,202
Trainable params: 1,239,202
Non-trainable params: 0
_________________________________________________________________
None
Epoch 1/10
17/17 [==============================] - 1s 10ms/step - loss: 0.4954 - accuracy: 0.7803
Epoch 2/10
17/17 [==============================] - 0s 5ms/step - loss: 0.3310 - accuracy: 0.9299
Epoch 3/10
17/17 [==============================] - 0s 4ms/step - loss: 0.2500 - accuracy: 0.9564
Epoch 4/10
17/17 [==============================] - 0s 12ms/step - loss: 0.1915 - accuracy: 0.9811
Epoch 5/10
17/17 [==============================] - 0s 10ms/step - loss: 0.1576 - accuracy: 0.9811
Epoch 6/10
17/17 [==============================] - 0s 6ms/step - loss: 0.1313 - accuracy: 0.9924
Epoch 7/10
17/17 [==============================] - 0s 12ms/step - loss: 0.1100 - accuracy: 0.9924
Epoch 8/10
17/17 [==============================] - 0s 8ms/step - loss: 0.0953 - accuracy: 0.9905
Epoch 9/10
17/17 [==============================] - 0s 19ms/step - loss: 0.0840 - accuracy: 0.9943
Epoch 10/10
17/17 [==============================] - 0s 20ms/step - loss: 0.0753 - accuracy: 0.9962
5/5 [==============================] - 0s 2ms/step - loss: 0.0768 - accuracy: 1.0000
Test accuracy: 1.0
```