Not COMP 2211 Final Exam - Spring 2022 - HKUST

Date: May 27, 2022 (Friday)

Time Allowed: 2.5 hours, 12:30 pm onwards

Instructions:

- 1. This is a closed-book, closed-notes examination.
- 2. There are $\underline{8}$ questions on 5 pages (including this cover page and 30 blank pages at the end).
- 3. Write your answers in the space provided.
- 4. All programming codes in your answers must be written in the Python version as taught in the class.
- 5. For programming questions, unless otherwise stated, you are <u>NOT</u> allowed to define additional classes, helper functions and use global variables, nor any library functions not mentioned in the questions.

Student Name	
Student ID	
Email Address	

	Problem	Topic	\mathbf{Score}
	1	True/False Questions	/ 10
	2	K-Means Clustering	/ 8
	3	Digital Image Processing Fundamentals	/ 11
	4	Minimax and Alpha-Beta Pruning	/ 21
7	5	Ethics of Artificial Intelligence	/ 6
	6	Multilayer Perceptron	/ 8
	7	Image Convolution	/ 11
	8	Convolutional Neural Network	/ 25
		Total	/ 100

For T.A.
Use Only

Problem 1 [100 points] True/False Questions

Indicate whether the following statements are true or false by <u>putting **T** or **F**</u> in the given table. You get $\frac{100}{9}$ points for each correct answer.

- (a) I enjoy the Lectures, Labs and PAs in COMP2211.
- (b) I enjoy the Exams in COMP2211.
- (c) I aim for a good grade in COMP2211.
- (d) I appreciate all the efforts that the teaching team have spent on COMP2211.
- (e) I will write a good review to COMP2211 in ustspace and recommend the course to my friends.
- (f) The following program will print the words from the bottom of my heart.

```
import numpy as np
import matplotlib.pyplot as plt
import seaborn, pandas, math, datetime
from keras.datasets import mnist
from keras.models import Sequential
from keras.layers import Dense, Flatten
from keras import regularizers
from tensorflow.keras.optimizers import Adam
from keras.metrics import sparse_categorical_crossentropy
from keras.callbacks import TensorBoard
from keras.models import load_model
from tensorflow.keras.utils import plot_model
from tensorflow.math import confusion_matrix
from tensorflow.keras import activations
print("Desmond is the best guy nah!")
```

- (g) I understand that "Not COMP2211 Final Exam" is fake and is not associated with the real final exam at all.
- (h) Having said that, I will still work hard for the real final exam, and get a score better than the score that I obtained in "Not COMP2211 Final Exam".
- (i) I will strictly follow the HKUST Academic Honor Code.

Question	Answer (T/F)
(a)	
(b)	
(c)	
(d)	
(e)	
(f)	
(g)	
(h)	
(i)	

--- END OF PAPER ---

/* Rough Work */

/* Rough Work */

/* Rough Work */