



考試日期： 年 月 日

考試科目	資料科學	系所別	人工智慧博士學位學程	命題教師	
<p>*現場採 8 選 5 的方式，每題 20 分。請同學每題作答，準備好 ppt，考試後繳交檔案予院辦。</p> <ol style="list-style-type: none">1. Please explain the task of feature extraction with three well-known feature extraction algorithms as examples.2. Suppose that you have three variants of classification algorithm C and two variants of feature extraction algorithm E to develop a classifier. Please explain in details how you can formally compare the overall accuracies of C and E taking all their variants into account. Note. You have to show the <u>theoretical foundation</u> of your proposed comparison.3. What is the relationship between machine learning and deep learning? What is the difference between them?4. Please briefly introduce CNN, RNN and LSTM, and then describe when they are suitable for use and what are the similarities and differences between them?5. What do you think about the Data Science?6. What are unsupervised learning and supervised learning? Please give an example.7. Please explain Artificial Neural Network (ANN) model? Please give an example.8. Please illustrate and explain Decision Tree and Random Forest. Please give an example.					