

## Software Engineering

考試方式：Close Book 考試時數：4 hours

1. 依你的經驗，舉一個實務個案解說專案管理方法論及其相關技術。 20%
2. 詳細討論一個你所熟知的風險管理方法論及其相關技術。 20%.
3. 請解說 CMMI(或 CMMI-SVC)的主要概念。 10%
4. The law of Demeter states that an object should send messages only to its nearest friends. Please use examples to describe all the situations. 20%
5. A company pays its employees on a weekly basis. The employees are of four types: Salaried-employees are paid a fixed weekly salary regardless of the number of hours worked; hourly-employees are paid by hour and receive overtime pay for all hours worked in excess of 40 hours; commission-employees are paid a percentage of their sales and salaried-commission employees receive a base salary plus a percentage of their sales. For the current pay period, the company has decided to reward salaried-commission employees by adding 10% to their base salaries. The company wants to implement a Java application that performs its payroll calculations polymorphically. Please draw the class diagram with attributes and operations as stated above. 15%
6. PPS.tv (PPStream) is a Chinese peer-to-peer streaming video network software. Please describe the benefits of using this type of design. What disadvantages of this model can possibly be in software architecture? 15%