生理心理學(30分)

1. 請描述 LTP(Long Term Potentiation) 這個神經電生理現象(10%)，以及神經元經由 NMDA receptor 的參與，形成 LTP 現象的完整生理化機制(20%)。

發展心理學(30分)

1. Answer the following questions about heritability estimates.
(1) What do they measure and how are they obtained? (5 分)
(2) What are their limitations, with respect to (a) how their accuracy has been challenged, (b) how they can be easily misapplied, and (c) how their usefulness is seriously limited? (6 分)

2. Answer the following questions about make-believe play and theory of mind.
(1) What are the benefits of make-believe play for children's development in general according to Piaget's view and according to the current view that regards Piaget's view as too limited? (5 分)
(2) According to Henry Wellman's theory and findings, what is the typical course of children's theory-of-mind development and what explains the developmental change? (10 分)
(3) How may the experience of make-believe play contribute to young children's development of a theory of mind? (4 分)

認知心理學(40分)

解釋名詞：(每題 4分)
1. 特徵整合理論　(feature-integration theory)
2. 建構的知覺 (constructive perception)
3. 記憶的固化(consolidation)歷程
4. 決策模型中之主觀效用 (subjective utility)及主觀機率 (subjective probability)
5. 知識表徵中之基模　(schema)

簡答題：
1. 請描述注意力的四個主要功能 (4 分)

2. 在這個幾乎人人都玩線上遊戲的時代，你覺得線上遊戲可以訓練哪些認知功能？(6 分)假設你認為線上遊戲對某一特定的認知功能最有訓練的效果，你如何設計一個研究來驗證你的想法？(請提出你的假設，研究方法，及預期結果) (10 分)