1. A contractor used the following chart to manage the cash flows for a unit-price-contract construction project. The X-axis represents the project progress in months, and the Y-axis the dollar amount. The expenditure curve depicts the amount of dollars paid by the contractor as the project progressed.

(30%)

(1) Duplicate the chart on your answer sheet.

(2) Suppose that the owner reimbursed the contractor for his expenditure plus a certain percentage of overhead and profit at the end of each month starting from the end of the 2nd month after the project started. What would the contractor’s income curve look like? Please sketch the curve on your chart (at about 1/2 page size).

(3) On your chart, identify the last payment from the owner.

(4) On your chart, identify the profit of the contractor.

(5) On your chart, identify the amount of cash the contractor needed to prepare for this project.

(6) On your chart, based on (2), use a dotted line to sketch another income curve to represent the situation where the contractor has used unbalanced bid technique to manipulate the unit price of the contract.

(7) On your chart, based on (2), use a bold line to sketch another income curve to represent the situation where the owner has given a mobilization payment to the contractor up front when the project started.
2. The following is the Time/Cost chart for a contractor's project. Three curves, ACWP (Actual Cost of Work Performed), BCWS (Budget Cost of Work Scheduled), and BCWP (Budget Cost of Work Performed), have been plotted on the chart. (20%)

1. Duplicate the chart on your answer sheet.
2. What is "Data Date"?
3. Identify the current cost variance (CV).
4. Identify the budget cost at completion (BCC).
5. Identify the latest estimated cost at completion (ECC).
6. Identify the variance at completion (VAC).

3. The Legislative Yuan has recently amended the Government Procurement Law. Please list and explain five major areas of the amendments. (15%)

4. Please explain the relationship between the Government Procurement Law and the Government Procurement Agreement (GPA) of the World Trade Organization (WTO). Signing the GPA would have significant impacts on local contractors. What are the impacts? In our Government Procurement Law, are there any protective measures to mitigate the impacts? (20%)

5. The MRT link between Taipei City and the CKS International Airport is to be implemented under a Build-Operate-Transfer (BOT) scheme. After an extensive, two-year long preparation and negotiation, the Government is ready to sign the Concession Agreement (特許契約) with the private investor. The private investor asks the Government to provide loan guarantee as a condition to sign the Agreement. Should the Government provide the guarantee? Why? (15%)