1. Discuss what is correct and what is incorrect in the following statement:

   A good management information system should provide the manager with as much information as possible and that information should be provided in no more than five seconds after it is requested.

Justify why you evaluated the statement in this way. (25 points)

2. What does a methodology contribute to a systems analysis and design project? Why is it important to use a methodology when building a system? What problems occur when you do not use a methodology? (25 points)

3. Consider the following narrative, and construct the specified diagrams. If you discover the narrative is incomplete, make up reasonable explanations to complete the story. Supply these extra explanations along with the diagrams. Prepare a Context Diagram and a Level 0 Diagram for the system described below. (25 points)

   Government Solutions Company (GSC) sells computer equipment to federal government agencies. Whenever a federal agency needs to purchase equipment from GSC, it issues a purchase order against a standing contract previously negotiated with the company. GSC holds several standing contracts with various federal agencies. When a purchase order is received by GSC’s contracting officer, the contract number referenced on the purchase order is entered into the contract database. Using information from the database, the contracting officer reviews the terms and conditions of the contract and determines whether the purchase order is valid. The purchase order is valid if the contract has not expired, the type of equipment is listed on the original contract, and the total cost of the equipment does not exceed a predetermined limit. If the purchase order is not valid, the contracting officer sends the purchase order back to the requesting agency with a letter stating why the purchase order cannot be filled, and a copy of the letter is filed. If the purchase order is valid, the contracting officer enters the purchase order number into the contract database and flags the order as
The purchase order is then sent to the order fulfillment department. Here the inventory is checked for each item ordered. If any items are not in stock, the order fulfillment department creates a report listing the items not in stock and attaches it to the purchase order. All purchase orders are forwarded to the warehouse where the items in stock are pulled from the shelves and shipped to the customer. The warehouse then attaches to the purchase order a copy of the shipping bill listing the items shipped and sends it to the contracting officer. If all items were shipped, the contracting officer closes the outstanding purchase order record in the database. The purchase order, shipping bill and exception report (if attached) are then filed in the contracts office.

4. Construct a use case narrative for any use case in the GSC (the narrative above). Draw the use case diagram that it represents. (25 points)