Part II

2)

   1) How would you define Object-Oriented Analysis and Design (OOAD)?   **[03 marks]**

   2) List down the 4 Phases of the Unified Process   **[04 marks]**

   3) List down any 3 Benefits of Iterative Development   **[06 marks]**

   4) List down any 3 Differences between the Structural Approach Vs Object-Oriented Approach   **[12 marks]**

3)

   1) What does GRASP stand for?   **[02 marks]**

   2) What is the primary purpose of GRASP?   **[03 marks]**

   3) List 4 GRASP patterns and describe their usage.   **[20 marks]**

4) Imagine a person named Alex visiting an ATM to withdraw cash. As Alex inserts their bank card into the ATM, the machine initiates the interaction by asking the bank server to verify the card's validity. The server responds, indicating whether the card is valid or not. if the card was not valid the ATM will eject the card. Assuming the card is valid, the ATM prompts Alex to input their PIN. The entered PIN is then sent to the server for validation. If the PIN is incorrect, the ATM will eject the card otherwise it proceeds to ask Alex to select the amount of cash to withdraw. Once the desired amount is entered by Alex, the ATM requests the bank server to initiate the transaction. The bank server verifies whether there are enough funds for the transaction by communicating with Alex's bank account. If funds are unavailable, the bank server replies that the transaction is unsuccessful otherwise, the bank server replies that the transaction is successful and the ATM dispenses the requested cash. Finally, the ATM ejects Alex's bank card, concluding the interaction.

   1) List all the actors and objects.   **[02 marks]**

   2) List all the messages, responses, and alternative paths.   **[17 marks]**

   3) Draw the Sequence diagram.   **[06 marks]**

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