Part I. True or False (50 points)

– 25 minutes.

1. A Java program is a collection of classes.
2. Every Java application program has a method called main.
3. A single-line comment starts with the pair of symbols // anywhere in the line. Multiline-line comments are enclosed between /**/.
4. The compiler ignores comments.
5. In Java, identifiers are names of things.
6. A Java identifier consists of letters, digits, the underscore character (_), and the dollar sign ($) and must begin with a letter, underscore, or the dollar sign.
7. Reserved words cannot be used as identifiers in a program.
8. All reserved words in Java consists of lowercase letters.
9. Java is case sensitive.
10. A data type is a set of values with a set of operations.

11. The three categories of primitive data types are integral, floating point, and Boolean.
12. Integral data types are used to deal with integers.
13. There are five categories of integral data types – char, byte, short, int, and long.
14. Java uses the Unicode character set, which is a set of 65,536 characters.
15. The ASCII character set, which has 128 values, is a subset of Unicode.
16. The first 128 characters of Unicode, 0-127, are the same as those of ASCII.
17. The collating sequence of a character is its preset number in the Unicode character data set.
18. The data types float and double are used to deal with floating-point numbers.
19. The maximum number of significant digits – that is, the number of decimal places --- in float values is 6 or 7.
20. The maximum number of significant digits in values belonging to the double type is 15.

21. The maximum number of significant digits is called the precision.
22. Values of type float are called single precision, and values of type double are called double precision.
23. The arithmetic operators in Java are addition (+), subtraction (-), multiplication (*), division (/), and modulo (%).
24. The mod operator, % gives the remainder upon division.
25. All operands in an integral expression, or integer expression, are integers, and all operands in a floating-point expression are decimal numbers.
26. A mixed expression is an expression that consists of both integers and decimal numbers.
27. When evaluating an operator in an expression, an integer is treated as a floating-point number, with a decimal part of zero, only if the operator has mixed operands.
28. You can use the cast operator to explicitly treat values of one data type as another.
29. The class String is used to manipulate strings.
30. A string is a sequence of zero or more characters.

31. Strings in Java are enclosed in double quotation marks.
32. A string containing no characters is called a null or empty string.
33. The operator + can be used to concatenate two strings.
34. During the program execution, the contents of a named constant cannot be changed.
35. A named constant is declared using the reserved word final.
36. A named constant is initialized when it is declared.
37. All variables must be declared before they can be used.
38. Java may not automatically initialize all the variables you declare.
39. Every variable has a name, a value, a data type, and a size.
40. When a new value is assigned to a variable, the old value is overwritten.

41. Only an assignment statement or an input (read) statement can change the value of a variable.
42. Input from the standard input device is accomplished by using a Scanner object initialized to the standard input device.
43. If console is a Scanner object initialized to the standard input device, then the expression console.nextInt() retrieves the next integer from the standard input device.
44. When the data is input in a program, the data items, such as numbers, are usually separated by blanks, lines, and tabs.
45. The increment operator, ++, increase the value of its operand by 1.
46. A package is a collection of related classes.
47. A class consists of methods, and a method is designed to accomplish a specific task.
48. In java, import is a reserved word.
49. A file containing a Java program always ends with the extension .java
50. Because the primitive data types are directly part of the Java language, they do not require any import statement to use them.

Part II. Application (25 points for the pseudocode, 25 points for the flowchart)

An ATM, which stands for automated teller machine, is a specialized computer that makes it convenient to manage a bank account holder's funds. It allows a person to check account balances, withdraw or deposit money, print a statement of account activities or transactions, and even purchase stamps.

An account holder can use an ATM to carry out a number of transactions.

Withdrawals are the most common transaction among ATM cardholders. This allows them to withdraw cash from their accounts. For a withdrawal, account holders just have to key in the amount they wish to take out.

ATM deposits also are becoming popular. Account holders can deposit money and checks if their bank allows it.

Balance inquiries allow account holders to view their current account balance. This feature may be helpful if account holders need to know the amount of money, they can spend with their debit card or credit card.

Transfers and payments are also available depending on the bank. This allows account holders to move money from one account to another, without withdrawing cash.

Account holders using an ATM not affiliated with their bank will most likely have to pay a fee. ATMs always disclose these fees on their screens, and they give users an option to cancel the transaction if they do not want to pay the fee.

With all those being said, construct a pseudocode and a flowchart for an ATM – as described above.