FLOWCHART 1:

DELIVERING PACKAGE

SORT NORMAL PACKAGE

FALSE

TRUE

PREPARE FOR DELIVERY

IS THE DELIVERY IS URGENT

HANDLE NORMAL PACKAGE

FALSE

HANDLE FRAGILE ITEM

TRUE

IS THE PACKAGE IS FFRAGILE

RECEIVE PACKAGE

FLOWCHART 2:

INITIALIZE PRODUCT PRICE

READ PRODUCT

IS PRODUCT AVAILABLE?

FALSE

PRINT PRODUCT UNAVAILABLE

TRUE

READ PAYMENT

IF PAYMENT IS EQUAL TO PRODUCT PRICE

FALSE

PRINT INVALID PAYMENT

TRUE

PRINT COLLECT YOUR PRODUCT

Q) Write pseudocode to find the smallest number among three given variables. Implement a decision-making structure to compare the variables.

START

INPUT X

INPUT Y

INPUT Z

IF (X < Y) AND (X< Z)

PRINT X IS THE SMALLEST NUMBER

ELSE IF (Y < X ) AND (Y < Z)

PRINT Y IS THE SMALLEST NUMBER

ELSE

PRINT Z IS THE SMALLEST NUMBER

END

Q) Develop pseudocode for a basic calculator that performs multiplication and division. The pseudocode should prompt the user for two numbers and an operator, then display the result of the operation.

START

INPUT NUM 1

INPUT NUM 2

INPUT OPERATOR

SET PRODUCT TO 0

SET QUOTIENT TO 0

IF OPERATOR==\*

SET PRODUCT TO NUM 1\*NUM 2

PRINT PRODUCT

ELSE

SET QUOTIENT TO NUM 1/NUM 2

PRINT QUOTIENT

END

Q) Write an algorithm to determine whether a number is a prime number. The algorithm should iterate through possible divisors and determine if the number has any divisors other than 1 and itself.

STEP 1: START

STEP 2: READ NUMBER N

STEP 3: START THE LOOP FROM i=2 TO i=N-1

STEP 4: IF N IS DIVIDED BY i THEN BREAK THE LOOP

STEP 5: IF i IS EQUAL TO N IT MEANS LOOP EXECUTED TILL THE END OF RANGE SO N IS NOT DIVIDED BY ANY NUMBER SO IT IS A PRIME NUMBER

STEP 6: ELSE IT IS NOT A PRIME NUMBER

STEP 7: END

Q) Create an algorithm that asks the user for a day number (1-365) and outputs the

corresponding day of the week, assuming that January 1st is a Monday.

STEP 1: START

STEP 2: READ DAY NUMBER

STEP 3: X IS EQUAL TO DAY NUMBER % 7

STEP 4: IF (X EQUAL TO 0) THEN IT IS A SUNDAY

STEP 5: ELSE IF (X EQUAL TO 1) THEN IT IS A MONDAY

STEP 6: ELSE IF (X EQUAL TO 2) THEN IT IS A TUESDAY

STEP 6: ELSE IF (X EQUAL TO 3) THEN IT IS A WEDNESDAY

STEP 7: ELSE IF (X EQUAL TO 4) THEN IT IS A THURSDAY

STEP 8: ELSE IF (X EQUAL TO 5) THEN IT IS A FRIDAY

STEP 9: ELSE IT IS A SATUARDAY

STEP 10: END

Q) Develop an algorithm for a program that takes two numbers as input and finds the Greatest Common Divisor (GCD) of the two numbers using the Euclidean algorithm.

STEP 1: START

STEP 2: READ A AND B

STEP 3: REPEAT WHILE LOOP UNTIL B IS NOT EQUAL TO 0

STEP 4: SET REMAINDER=A%B

STEP 5: SET A=B

STEP 6: SET B=REMAINDER

STEP 7: DISPLAY A IS GCD

STEP 8: END