PROGRAMMING FUNDAMENTAL  
LAB Task 02

-FLOWCHARTS:  
Question # 1

Start

No

No

No

Yes

Yes

Yes

End

Deliver Order

Standard Delivery

Urgent Delivery

Is order urgent?

Sort Non-Fragile Item Delivery

Standard Delivery

Urgent Delivery

Is order urgent?

Sort Fragile Item Delivery

If item is fragile?

RECEIVE ORDER

Question#2

Start

If number is equal to or between 1 and 5

End

Dispense product

Return Money

Change = Payment – Product Price

Print Insufficient Payment

If Payment is greater than or equal to Product Price

Request Payment

Print Invalid Input

Input Product Number

Display Product Numbers From 1 to 5 with prices

No

Yes

No

Yes

-PSEUDO CODES:

Question#1

Pseudo Code:

* Start
* Input Num1, Num2, Num3
* If Num2>Num1 and Num3>Num1  
   Print “Num1 is Smallest”
* If-else Num1>Num2 and Num3>Num2  
   Print “Num2 is Smallest”
* Else Print ”Num3 is smallest”
* End

Question#3

Pseudo Code:

* Start
* Input Num1, Num2
* Input Operator \* or /
* If (operator == \*)  
   Result = Num1\*Num2  
   Print “Result”
* else   
   Result = Num1/Num2  
   Print “Result”
* End

-ALGORITHMS:

Question#1

1. Start
2. Ask user to enter number and initialize it as n
3. Check If number is less than 2. If yes, Goto step 8 otherwise Goto next step.
4. Initialize Integer i=2.
5. Check if number n gives reminder 0 when divided by integer i. If yes, Goto step 8 otherwise Goto next step.
6. Increment integer i by 1.
7. If integer becomes equal to number Goto step 9 otherwise Goto step 5
8. Tell User that the entered number is not a prime number. Goto Step 10.
9. Tell User that the entered number is a prime number.
10. End

Question#2

1. Start
2. Initialize 1=Monday, 2=Tuesday, 3= Wednesday, 4=Thursday, 5=Friday, 6=Saturday, 0=Sunday
3. Ask User to enter a date between 1-365
4. Divide the entered date by 7, the reminder will be in between 0-7.
5. The Reminder Will Corresponds the day as assigned in step 2.  
   //If the reminder is zero the day will be Sunday likewise if 1 then the day will be Monday.
6. Show user the Day corresponds to the Date.
7. End

Question#3

1. Start
2. Ask users to input two numbers, a and b
3. If a<b, replace a by b
4. Divide a by b, and get the reminder r
5. If reminder gets zero, Goto step 8 otherwise Goto next Step.
6. Replace a by b, and b by r
7. Goto Step 4.

//Repeat these steps until reminder is zero.

1. Show User b value as the GCD of numbers.
2. End

EXAMPLE:  
GCD of (96,116)

|  |  |  |  |
| --- | --- | --- | --- |
| Quotient | Larger Number(a) | Smaller Number(b) | Reminder(r) |
| 1 | 116 | 96 | 20 |
| 4 | 96 | 20 | 16 |
| 1 | 20 | 16 | 4 |
| 4 | 16 | 4 | 0 |

As reminder becomes zero at b=4. So, GCD of (96,116) is 4