PROGRAMMING FUNDAMENTALS

Ⅰ Task 2:

Pseudocode:

```
START
INPUT CustomerOrder
INPUT SpecialRequests
SET TotalCost to 0

IF SpecialRequest = TRUE THEN
ADD SpecialRequest to CustomerOrder
END IF
Calculate TotalCost
(based on CustomerOrder)
END
```

Algorithm:

STEP 1: START

STEP 2: Display Menu

STEP 3: Ask Customer to select items

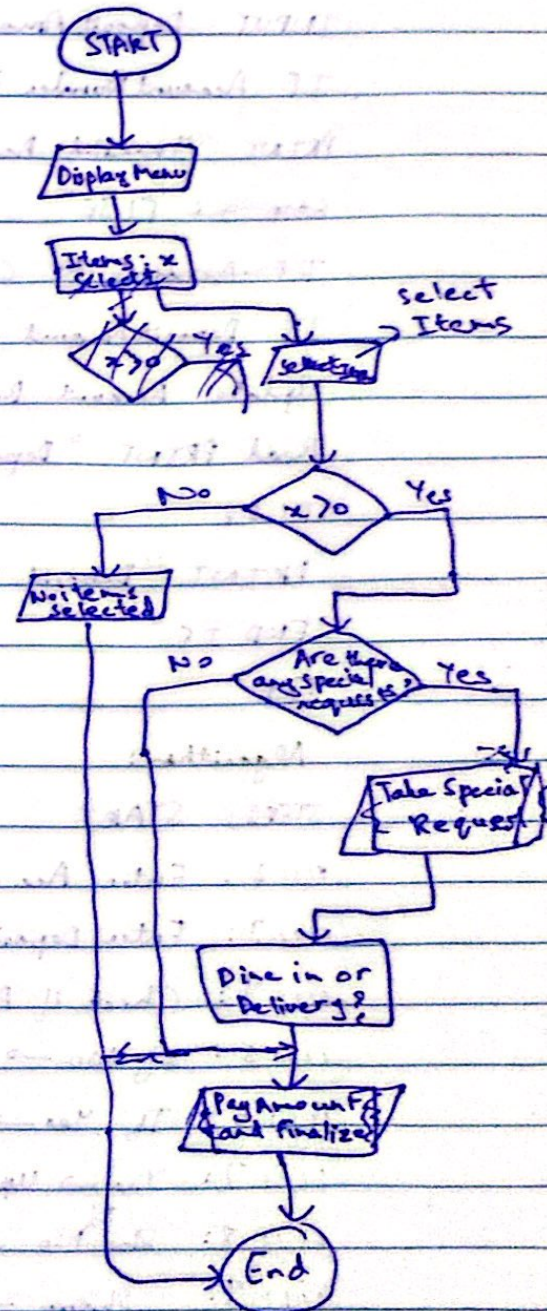STEP 4: Ask for special requirements

'''5: Take Special Requirements

'''6: Ask dine in or Delivery

'''7: Take Payment and Confirm Order

'''8: Finalize Order

'''9: END

Flowchart:

Task 2:

Pseudocode:

START

INPUT Account Number

INPUT Deposit Amount

IF Account Number is NOT valid THEN

PRINT "Invalid Account Number"

~~END If~~ ELSE

~~If Account to~~ Check /If Deposit Amount > 0

IF Deposit Amount : TRUE THEN

Update Account Balance

~~Read~~ PRINT "Deposit Successful"

ELSE

PRINT "Deposit unsuccessful"

END IF

END

Algorithm:

STEP1: START

STEP 2: Enter Acc No

STEP 3: Enter Deposit Amount

STEP 4: Check if Acc No valid

STEP 5: If No → Show Error

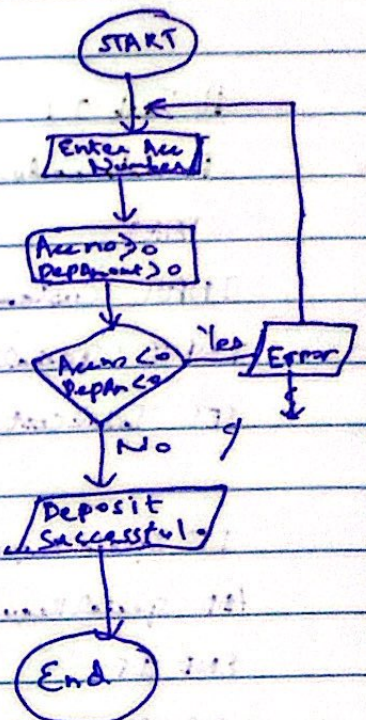STEP 6: If Yes → Check if deposit Amount > 0

STEP 7: Yes → Update Account Balance

STEP 8: If No → Show Error

STEP 9: Show → "Successfully updated"

STEP 10: END

Flowchart:

START

Enter Acc Number

Acc no > 0
Dep Amount > 0

Acc < 0
Dep Amt < 0 → Yes → Error

No

Deposit Successful

End

Task 3:

Pseudocode:

```
START
Enter XYZ
IF X>Y , X>Z
THEN READ " X is the largest"
END IF
IF Y>X , Y>Z
THEN READ " Y is the largest"
END IF
IF Z>X , Z>Y
THEN READ "Z is the largest"
END IF
END
```

Flowchart:

Algorithm:

START step 1: Start START.

Step 2: Input XYZ

Step 3: Check if X>Y and X>Z

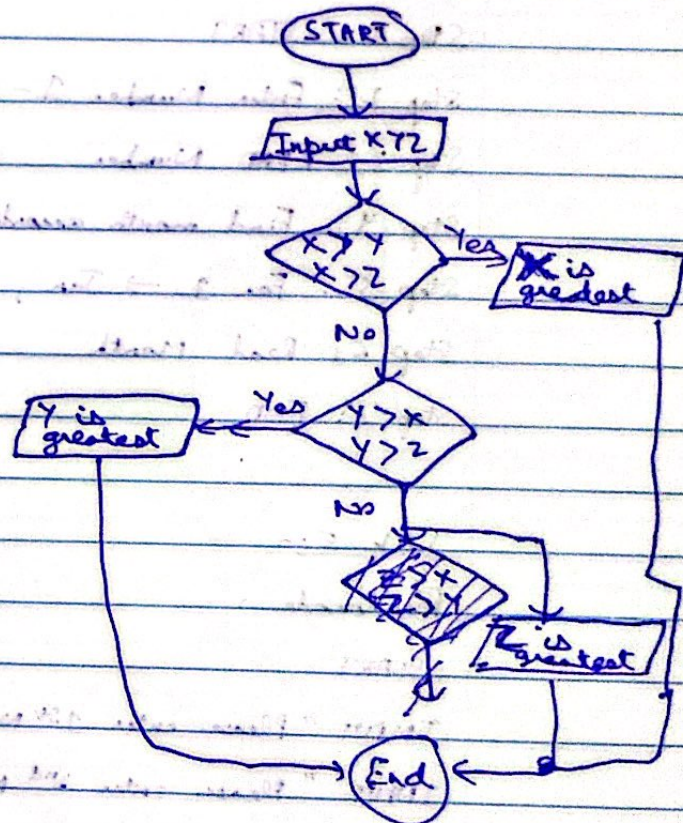Step 4: If yes deeple READ "X is largest"

Step 5: If not THEN check Y>X and Y>Z

Step 6: If yes READ " Y is largest"

Step 7: If not READ "Z is largest"

Step 8: END

Step 9:

Task 4:-

Pseudocode: Algorithm:

Step 1 : START

Step 2 : Enter Number 1-12

Step 3 : READ Number

Step 4 : Find month according to number

Step 5 : For 1 → Jan, 2 → Feb ·12 → Dec

Step 6 : Read Month

Step 7 : END

Task 5:-

Pseudocode :

START

INPUT " Please enter 1st Number ", Num 1

INPUT " Please enter 2nd Number ", Num 2

INPUT " Please enter your operator ", Operator

WHEN Operator = " + " ,
   Ans : Num 1 + Num 2

OUTPUT " The answer is ", Ans

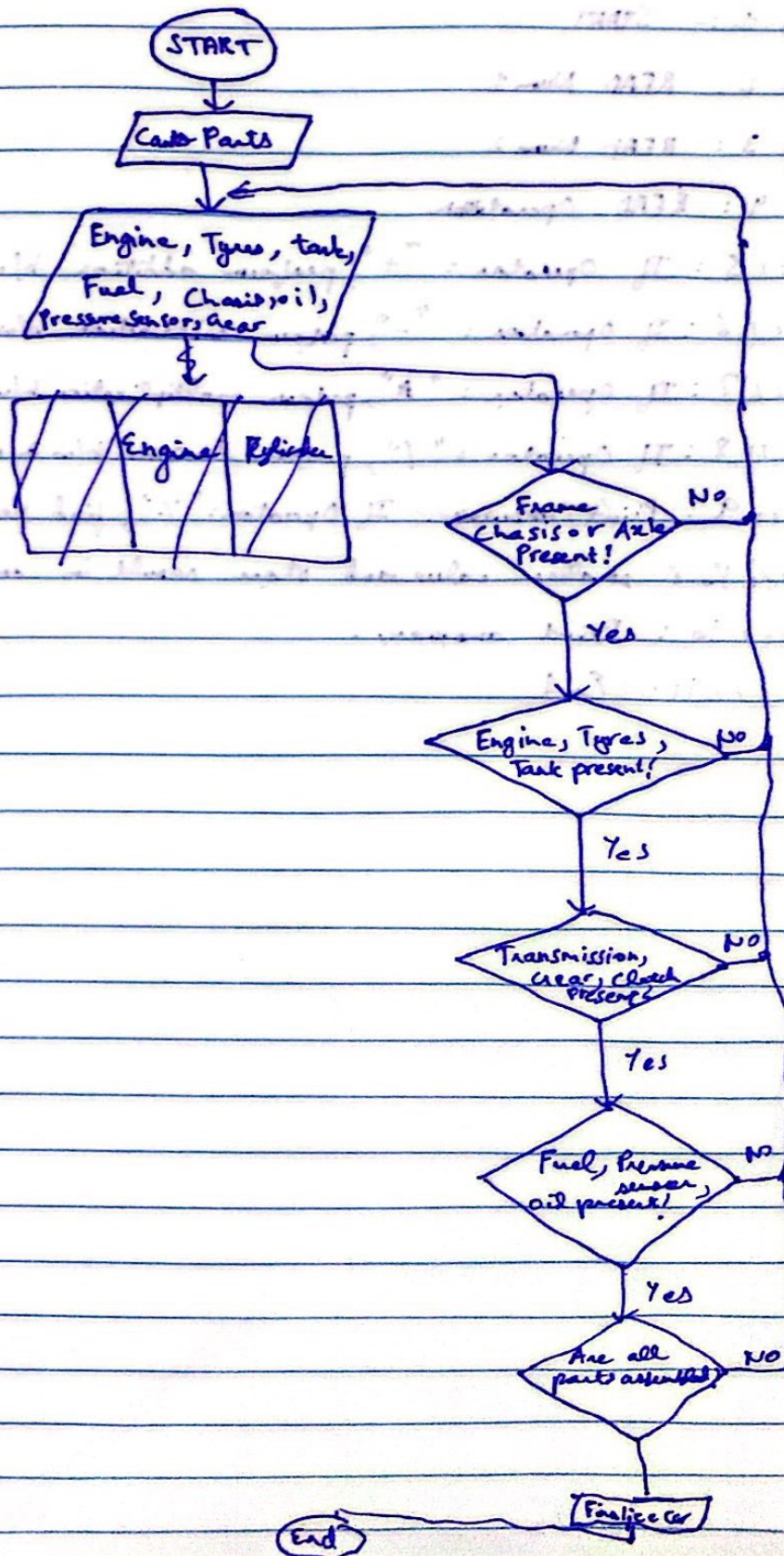WHEN Operator = " - " ,
   Ans : Num 1 - Num 2
   OUTPUT " The answer is ", Ans

OTHERWISE :

OUTPUT " Invalid operator entered ".

END

Task 6 :-

```
         ┌─────────┐
         │  START  │
         └────┬────┘
              ▼
      ┌────────────────┐
      │   Car Parts    │
      └────────┬───────┘
              ▼
    ╱────────────────────╲
   ╱ Engine, Tyres, tank, ╲
  ╱  Fuel, Chasis, oil,    ╲
 ╱ Pressure sensors, Gear   ╲
 ╲──────────────────────────╱
              ▼
    ┌──────┬────────┬──────┐
    │      │ Engine │Cylinder│
    └──────┴────────┴──────┘
```

Flowchart decisions (right column):

- **Frame Chasis or Axle Present!** — No → (loop back) / Yes ↓
- **Engine, Tyres, Tank present!** — No → / Yes ↓
- **Transmission, gear, clutch present?** — No → / Yes ↓
- **Fuel, Pressure sensor, oil present!** — No → / Yes ↓
- **Are all parts assembled?** — No → / Yes ↓
- **Finalize Car**
- **End**

Task 7 :- (Algorithm)

Step 1 :- START

Step 2 : READ Num 1

Step 3 : READ Num 2

,,,, 4 : READ Operation

,,,, 5 : If Operator = " + ", perform addition b/w 2 numbers and store result in ans

,,,, 6 : If Operator = " - ", perform subtraction b/w 2 numbers and store result in ans

,,,, 7 : If Operator = " * ", perform multiplication b/w 2 numbers and store result in ans

,,,, 8 : If Operator = " / ", perform division b/w 2 numbers and store result in ans

,,,, 9 : Print / answer - If Operator: " % ", find percentage of a value to it's

,,(% ? smaller value and store result in ans.

,,,, 10 : Print answer.

,,,, 11 : End