LAB - ASSIGNMENT - 1

Ques 1 A Farmer wants to fence with three rounds of wire in his rectangular plot of length 20 metres and breath 15 metres. Calculate the total wire to be purchased. If the cost per metre of wire is 400 rupees, also calculate the total cost of fencing.

Sol.

⇒ START CODING

```
1.  # include <stdio.h>
2.  int main ()
    {
3.      int l, b, peri, rupe, Cost;
4.      l = 20;
5.      b = 15;
6.      rupe = 400
7.      peri = (2*(l+b)*3 ;   // multiply by 3 because three
8.                               round of wire
9.  Cost = peri * rupe;
        Printf("total wire is %d\n", peri);
        printf(" total Cost is %d", cost);
    return 0;
}
```

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⇒ Output

total wire is 210
total Cost is 84000

⇒ Algorith.

Step 1 START

Step 2 Declare $l=20$, $b=15$, Peri $=0$, rupe $=400$, Cost $=0$

Step 3 Peri $= 2 \times (l+b) \times 3$

Step 4 print Peri

Step 5 Cost = rupe x peri

Step 6 Print Cost

Step 7 STOP

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Ques 2 WAP to Convert temperature from fahrenheit to celsius.

Sol. ⇒ START CODING

1.
```
# include<stdio.h>
int main(){
    Float fah, cel;
    Scanf("%f", &fah);
    Cel = (5.0/9)*(fah-32);
    PrintF("temperature of %.2f°f is %.2f°c in
            Celsius", fah, cel);
    return 0;
}
```

⇒ Output

⇒ Algorith

Step1 START

Step2 declare fah = 0 , cel = 0

Step3 Read fah, cel

Step4 Cel = (5.0/9) × (fah-32)

Step5 Print Cel

Step6 STOP

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Ques 3 WAP to exchange two numbers using a temporary variable and without.

Sol. Temporary variable

⇒ START CODING.

```
#include <stdio.h>
int main()
{
    int x, y, temp;

    Scanf("%od%d", &x, &y);
    printf("Before Swapping x=%d, y=%od\n", x, y);

    temp = x;
    x = y;
    y = temp;
    printf("After Swapping x=%d, y=%od", x, y);
  return 0;
}
```

⇒ Algorith.

Step1 START
Step2 Declare x = 0, y = 0, temp = 0.
Step3 Read x, y.
Step4 before Swapping Print x and y
Step5 temp = x
Step6 x = y

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Step 7 y = temp
Step 8 after swapping print x and y
Step 9 STOP

Without temporary variable

⇒ START CODING

```
# include<stdio.h>
int main()
{
  int x, y
  x = 5;
  y = 8;
  Printf("before swapping x=%d, y=%d\n", x, y);

  x = x+y;
  y = x-y;
  x = x-y;
  printf("After swapping x=%d, y=%d", x, y);

  return 0;
}
```

⇒ Algorith.
⇒ Algorith.
Step 1 START
Step 2 declare x = ; y
Step 3 Read x and y.

Always ahead.

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Step4 before swapping Print x and y
Step5 $x = x + y$
Step6 $y = x - y$
Step7 $x = x - y$
Step8 after swapping Print x and y.
Step9 STOP.