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18/SC114/025
CIVIL ENGINEERING

Question 1

```
#include <stdio.h>
#include <stdlib.h>
int main ()
{
    int days, years, weeks;
    printf ("Enter number of days: ");
    scanf ("%d", &days);
    years = (days/365);
    weeks = ((days - (years * 365)) / 7);
    days = days - ((years * 365) + (weeks * 7));
    printf ("YEARS: %d\n", years);
    printf ("WEEKS: %d\n", weeks);
    printf ("DAYS: %d\n", days);
}
```

Question 2

```
#include <stdio.h>
#include <stdlib.h>
int main () {
    float x1, y1, x2, y2, distance;
    printf ("Input x1: ");
    scanf ("%f", &y1);
    printf ("Input x2: ");
    scanf ("%f", &x2);
    printf ("Input y2: ");
    scanf ("%f", &y2);
    distance = ((x2-x1)*(x2-x1)) + ((y2-y1)*(y2-y1));
    printf ("Distance between the card points; %.4f",
    sqrt (distance));
    printf ("\n");
    return 0;
}
```

Question 3

```
#include <stdio.h>
#include <stdlib.h>
int main()
{
    float a, b, c, perimeter;
    printf ("Enter first side:");
    scanf ("%f", &a);
    printf ("Enter second side:");
    scanf ("%f", &b);
    printf ("Enter third side:");
    scanf ("%f", &c);
    if ((a+b) > c && (a+c) > b && (b+c) > a) {
        printf ("A triangle can be formed");
        perimeter = a + b + c;
        printf ("Perimeter is %0.2f", perimeter);
    } else
        printf ("triangle cannot be formed");
}
```

Question 4

```
#include <stdio.h>
int main ()
{
    int age;
    int cnt_baby = 0, cnt_school = 0, cnt_adult = 0;
    int count = 0;
    while (count < 20)
    {
        printf ("Enter age of person [%d]:", count + 1);
        scanf ("%d", &age);
        if (age >= 0 && age <= 4)
            cnt_baby ++;
        else if (age >= 5 && age <= 17)
            cnt_school ++;
        else
            cnt_adult ++;
        count ++;
    }
```

```
cnt_adult ++;
count ++;
}
printf ("Ba
printf ("Sc
printf ("A
return 0;
}
```

Question 5

```
#include <
#include
#include
int main
{
    int ran
    int strin
    long Ho
    ltime =
    stime =
    srand (
    random
    while
    {
```

```
co
print
sc
if
```

```

cnt = adult ++;
count ++;
}
printf ("Baby age : %d\n", cnt_baby);
printf ("School age : %d\n", cnt_school);
printf ("Adult age : %d\n", cnt_adult);
return 0;
}

```

Question 5

```

#include <stdio.h>
#include <stdlib.h>
#include <time.h>
int main ()
{
int random_genNo = 0, count = 0, num;
int stime;
long ltime;
ltime = time (NULL);
stime = (unsigned) ltime / 2;
srand (stime);
random_genNo = rand () % 100;
while (1)
{
count += 1;
printf ("\n\n Guess a number from (0 to 100); ");
scanf ("%d", & num);
if (random_genNo == num) {
printf ("Congratulations, you have guessed the correct number.");
break;
}
else if (random_genNo < num) {
printf ("Generated number is less than entered number, try your luck again.....");
}
else if (random_genNo > num) {

```

```
printf ("Generated number is greater than entered number,  
try your luck again...");  
}  
if (count == 7) {  
printf ("\n\n GENERATED NUMBER IS %d\n", random-generated);  
printf ("\n\n maximum limit of finished, BAD Luck !!\n");  
break  
}  
}  
return 0;  
}
```