Flavours of C

Name of C	Platform
ANSI	Unix
Dynamic	Linux
TurboC	MS-DOS
Borland C	Windows
Microsoft C	Windows
Pro C	Oracle

Background flies in TurboC/DevC

1. College C	-	Source code
2. College.bak	-	backup file
3. College.obj	-	object file
4. College.exe	-	executable file

Each language should have it's process done in different language

Variable Declarations

I - P - O

get() - to read a string with multiple words

```
scanf("[\n%s]",name);
```

fflush(stdin); ---->(used above scanf statememt)

Format specifiers

%d	int
%f	float
%c	char
%s	string
%ld	long int
%u	unsigned
%i	int

Escape Sequences

\n	-	new line
\t	-	new tab

\b - backspace
\a - alert
\\ - backslash
\' - single quote
\" - double quotes

1. Print hello world within doulbe quotes?

```
/* print "Hello World"
#include <stdio.h>

int main()
{
        printf("\"Hello World\"");

        return 0;
}
```

o/p: "Hello World"

```
int main(int argc,char*argv[])
{
        printf("\"Hello World\"");

        return (0);
}
```

2.

```
/* post increment demo*/
#include <stdio.h>

main()
{
int a,b;
a=10;
b=++a;
printf("\n a=%d",a);
printf("\n b=%d",b);
}
```

o/p:
a=11
b=11

3.

```
/* post increment demo*/
#include <stdio.h>

main()
{
int a,b;
a=10;
b=a++;
printf("\n a=%d",a);
printf("\n b=%d",b);
}
```

o/p:
a=11
b=10

4.

5.print even or odd

```
#include <stdio.h>
main()
{
int n;
printf("\n plz enter a no: ");
scanf("%d",&n);
printf(n%2==0? "even" :"odd");
}
```

o/p:
plz enter a no : 2
even
plz enter a no : 3

6.

```
#include <stdio.h>
main()
{
int n;
printf("\n plz enter a no: ");
scanf("%d",&n);
printf(n>0? "positive" : n<0 ? "negitive" :"it is zero" );
}
```

7. to print a,b,c which is bigger in one line

```
#include <stdio.h>
main()
{
int a,b,c;
printf("\n enter a,b,c values:  ");
scanf("%d%d%d",&a,&b,&c);
printf( a==b && b==c ?"all are equal"
          :a>b && a>c ? "a is big"
          : b>c ? "b is big" : "c is big");
}
```

conditional/ternary

? :

misc operators

*

.

->

&

control statements

1. conditional control statements

~ if

~ if else

~ else if (nested if)

2.case control statements

~ switch

Type casting

1.implicit type casting

```
/*implicit type casting */
#include <stdio.h>
main()
{
int a=2.3;
float b=10;
char c=65;
```

```
printf("\n a= %d",a);
printf("\n b= %f",b);
printf("\n c= %c",c);
}
```

o/p:

a=2

b=10.000000

c=A

2.explicit type casting

9.

```
/*ASCII DEMO
0 to 255 total 256 ASCII values*/
#include <stdio.h>
main()
{
int var=65;
char ch='a';

printf("\n var= %d",var);
printf("\n var=%c",var);
printf("\n ch= %c",ch);
printf("\n ch= %d",ch);
}
```

10.

```
/*ASCII DEMO-2
to print ASCII chart*/
#include <stdio.h>
main()
{
int i;
for(i=0;i<256;i++)
printf("\n %d \t %c",i,i);
}
```

10.1in turbo c

```
/*ASCII DEMO-2
to print ASCII chart*/
#include <stdio.h>
main()
{
```

```
int icount=0;
for(i=0;i<256;i++,count++)
if (count==20)
{printf("\n press any key");
printf("\n %d \t %c",i,i);
get()
count=0
}
```

11.

```
#include <stdio.h>
main()
{
        int rno,s1,s2,s3,tot=0;
        char name[20];
        float avg=0;
        printf("\n enter rno: ");
        scanf("%d",&rno);
        printf("\n enter name: ");
        scanf("%s",&name);
        printf("enter 3 sub marks: ");
        scanf("%d %d %d",&s1,&s2,&s3);
tot=s1+s2+s3;
avg=(float)tot/3;
printf("\n roll no: %d",rno );
printf("\n student name: %s",name );
printf("\n total: %d",tot );
printf("\n average: %f",avg );

}
```

o/p:

```
 enter rno: 2



 enter name: hari

enter 3 sub marks: 20 30 40
```

roll no: 2

student name: hari

total: 90

average: 30.000000

12.

```
#include <stdio.h>
#include<stdlib.h>
 void main(int argc,char *argv[])
 {
            int a,b;
            if(argc<0)
            printf("\n invalid no of args");
            else
            {
            a=atoi(argv[1]);
            b=atoi(argv[2]);
            printf("\n sum is : %d",a+b);

     }
 }
```

13.to check the given character is upper casde or lowercase or digit.

```
#include<stdio.h>
#include<stdlib.h>
main()
{
           char n;
print("enter anything");
           scanf("%c")
if(n>=97&&n<=122)
printf("lower case");
else if(n>=65&&n<=90)
printf("uppercase");
else
printf("digit");
}
```

14.to check whether a number is divisible by 5 and 11.
15.check the given year is leap year or not.

```
#include<stdio.h>
main()
{
int year;
printf("\n enter a year: ");
scanf("%d",&year);
if((year%4==0 &7 year%100!=0) || year%400==0)
printf("\n leap year");
else
printf("\n not a leap year");
}
```

16.

```
#include<stdio.h>
main()
{
int a,b;
char ch;
printf("\n enter 2 values : ");
scanf("%d %d",&a,&b);
printf("\n enter operator of your choice: ");
ch=getch();
//fflush(stdin);
//scanf("%c",&ch);
switch(ch)
{
        case '+' :printf("\n sum :%d",a+b);break;
        case '-' :printf("\n difference :%d",a-b);
default:printf("\n invalid choice...!");
}
```