

C-Test Paper

1. #include

* What is wrong in the following problem

```
main() {  
    int i,j;  
    j = 10;  
    i = j++ - j++;  
    printf("%d %d", i,j);  
}  
ans: 0, 12
```

2.#include

* What is the output of the following problem

```
main() {  
    int j;  
    for(j=0;j<3;j++)  
        foo();  
}  
foo() {  
    static int i = 10;  
    i+=10;  
    printf("%d\n",i);  
}
```

```
/* Out put is (***)since static int is used i value is retained between
* 20 function calls )
* 30
* 40
*
/
```

3.#include

#include

#include

/* This is asked in PCS Bombay walk-in-interview

* What is wrong in the following code

*/

main()

{

char *c;

c = "Hello";

printf("%s\n", c);

}

/*ans:- Hello, The code is successfully running */

4. #include

/* This problem is given in PCS BOMBAY walk-in-interview.

* What is the final value of i and how many times loop is

* Executed ?

```
*/
```

```
main()
```

```
{
```

```
int i,j,k,l,lc=0;
```

```
/* the input is given as 1234 567 */
```

```
printf("Enter the number string:<1234 567 \n");
```

```
scanf("%2d%d%1d",&i,&j,&k);
```

```
for(;k;k--,i++)
```

```
for(l=0;l
```

```
printf("%d %d\n",i,l);} 
```

```
printf("LOOPS= %d\n", lc-1);
```

```
}
```

```
/* Ans: i = 16, and loop is executed for 169 times */
```

```
5.#include
```

```
/* This is given in PCS Bombay walk-in-interview */
```

```
/* What is the output of the following program */
```

```
main() {
```

```
union {
```

```
int a;
```

```
int b;
```

```
int c;
```

```
} u,v;  
u.a = 10;  
u.b = 20;  
printf("%d %d \n",u.a,u.b);  
}
```

/* Ans : The latest value assigned to any of the union member
will be present in the union members so answer is

20 20

```
*/
```

```
6.#include
```

```
main()
```

```
{
```

```
float i, j;
```

```
scanf("%f %f", &i, &j);
```

```
printf("%.2f %.3f", i, j);
```

```
}
```

```
/Ans:- 123.34 3. 234 */
```

```
7.#include
```

```
/* This is given in PCS Bombay walk-in-interview
```

```
* What is the out put of the following problem ?
```

```
*/
```

```
main()
```

```
{  
char *str = "12345";  
printf("%c %c %c\n", *str, *(str++), *(str++));  
}
```

/* Ans: It is not 1 2 3

* But it is 3 2 1 Why ??

*/

8.#include

/* This problem is asked in PCS Bombay Walk-in-interview

* Write a macro statement to find maximum of a,b

*/

```
#define max(a,b) (a>b)?a:b
```

```
main()
```

```
{
```

```
int a,b;
```

```
a=3;
```

```
b=4;
```

```
printf("%d",max(a,b));
```

```
}
```

/* Ans is very simple the coding is just for testing it

and output is 4 */

~

9.#include

```
/* This problem is asked in PCS Bombay
* What is the output of the following coding
*/
```

```
main()
{
int len=4;
char *st="12345678";
st = st -len;
printf("%c\n",*st);
}
```

```
/* Ans : It will print some junk value */
```

```
~
```

```
10.#include
```

```
main()
{
func(1);
}
func(int i){
static char *str ={"One","Two","Three","Four"};
printf("%s\n",str[i++]);
return;
}
```

```
/* Ans:- it will give warning because str is pointer to the char but
it is initialized with more values
```

if it is not considered then the answer is Two */

11.

```
#include
```

```
main()
```

```
{
```

```
int i;
```

```
for (i=1;i<100; i++)
```

```
printf("%d %0x\n",i,i);
```

```
}
```

```
/* Ans:- i is from 1 to 99 for the first format,
```

```
for the second format 1to9, ato f, 10 to 19,1ato1f, 20 to 29, etc */
```

12.#include

```
/* This problem is asked in PCS Bombay walk-in-interview
```

```
* In the following code please write the syntax for
```

```
* assing a value of 10 to field x of s and id_no 101 of s
```

```
*/
```

```
struct {
```

```
int x;
```

```
int y;
```

```
union {
```

```
int id_no;
```

```
char *name;
```

```

}b;

}s,*st;

main()

{

st = &s;

st-x=10;

st-b.id_no = 101;

printf("%d %d\n",s..x,s.b.id_no);

}

/* Ans: The answer is st-x=10;

* st-b.id_no=101;

*/

13.#include

/* This problem was asked in PCS Bombay in a walk-in-interview

* Write a recursive function that calculates

* n * (n-1) * (n-2) * ..... 2 * 1

*/

main() {

int factorial(int n);

int i,ans;

printf("\n Enter a Number:");

scanf("%d",&i);

ans = factorial(i);

printf("\nFactorial by recursion = %d\n", ans);

```

```
}  
  
int factorial(int n)  
{  
if (n <= 1) return (1);  
else  
return ( n * factorial(n-1));  
}
```

~

14.#include

/* This problem is asked in PCS Bombay walk-in-interview

* What is the output of the following problem

*/

```
main(){
```

```
int j,ans;
```

```
j = 4;
```

```
ans = count(4);
```

```
printf("%d\n",ans);
```

```
}
```

```
int count(int i)
```

```
{
```

```
if ( i < 0) return(i);
```

```
else
```

```
return( count(i-2) + count(i-1));
```

```
}
```

```
/* It is showing -18 as an answer */
```

```
15.#include  
main()  
{  
int i=4;  
if(i=0)  
printf("statement 1");  
else  
printf("statement 2");  
}  
/* statement 2 */
```

This is pcsb paper.

```
1. #include
```

```
* What is wrong in the following problem
```

```
main() {  
int i,j;  
j = 10;  
i = j++ - j++;  
printf("%d %d", i,j);
```

```
}
```

ans: 0, 12

2.#include

* What is the output of the following problem

```
main() {
```

```
int j;
```

```
for(j=0;j<3;j++)
```

```
foo();
```

```
}
```

```
foo() {
```

```
static int i = 10;
```

```
i+=10;
```

```
printf("%d\n",i);
```

```
}
```

/* Out put is (***)since static int is used i value is retained between

* 20 function calls)

* 30

* 40

*

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3.#include

#include

```
#include

/* This is asked in PCS Bombay walk-in-interview

* What is wrong in the following code

*/

main()

{

char *c;

c = "Hello";

printf("%s\n", c);

}

/*ans:- Hello, The code is successfully running */
```

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```
/* This problem is given in PCS BOMBAY walk-in-interview.

* What is the final value of i and how many times loop is

* Executed ?

*/
```

```
main()

{

int i,j,k,l,c=0;

/* the input is given as 1234 567 */

printf("Enter the number string:<1234 567 \n");

scanf("%2d%d%1d",&i,&j,&k);
```

```
for(;k;k--,i++)
for(l=0;l
printf("%d %d\n",i,l);}
printf("LOOPS= %d\n", lc-1);
}
/* Ans: i = 16, and loop is executed for 169 times */
```

5.#include

```
/* This is given in PCS Bombay walk-in-interview */
```

```
/* What is the output of the following program */
```

```
main() {
union {
int a;
int b;
int c;
} u,v;
u.a = 10;
u.b = 20;
printf("%d %d \n",u.a,u.b);
}
```

```
/* Ans : The latest value assigned to any of the union member
will be present in the union members so answer is
```

```
20 20
```

```
*/
```

```
6.#include
main()
{
float i, j;
scanf("%f %f", &i, &j);
printf("%.2f %.3f", i, j);
}
```

/Ans:- 123.34 3. 234 */

```
7.#include
/* This is given in PCS Bombay walk-in-interview
* What is the out put of the following problem ?
*/
```

```
main()
{
char *str = "12345";
printf("%c %c %c\n", *str, *(str++), *(str++));
}
```

```
/* Ans: It is not 1 2 3
* But it is 3 2 1 Why ??
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```
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```

```
/* This problem is asked in PCS Bombay Walk-in-interview
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* Write a macro statement to find maximum of a,b
```

```
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```
#define max(a,b) (a>b)?a:b
```

```
main()
```

```
{
```

```
int a,b;
```

```
a=3;
```

```
b=4;
```

```
printf("%d",max(a,b));
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```
}
```

```
/* Ans is very simple the coding is just for testing it
```

```
and output is 4 */
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```
~
```

```
9.#include
```

```
/* This problem is asked in PCS Bombay
```

```
* What is the output of the following coding
```

```
*/
```

```
main()
```

```
{
```

```
int len=4;
```

```
char *st="12345678";
```

```
for(i=0; i<6; i++)
```

```
st = st - len;
printf("%c\n", *st);
}
/* Ans : It will print some junk value */
```

~

```
10.#include
```

```
main()
```

```
{
```

```
func(1);
```

```
}
```

```
func(int i){
```

```
static char *str = { "One", "Two", "Three", "Four"};
```

```
printf("%s\n", str[i++]);
```

```
return;
```

```
}
```

```
/* Ans:- it will give warning because str is pointer to the char but
```

```
it is initialized with more values
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```

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main()
```

```
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```

```
int i;
```

```
for (i=1;i<100; i++)
```

```
printf("%d %0x\n",i,i);
```

```
}
```

```
/* Ans:- i is from 1 to 99 for the first format,
```

```
for the second format 1to9, ato f, 10 to 19,1ato1f, 20 to 29, etc */
```

```
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```

```
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```
* In the following code please write the syntax for
```

```
* assing a value of 10 to field x of s and id_no 101 of s
```

```
*/
```

```
struct {
```

```
int x;
```

```
int y;
```

```
union {
```

```
int id_no;
```

```
char *name;
```

```
}b;
```

```
}s,*st;
```

```
main()
```

```
{
```

```
st = &s;
```

```
st-x=10;
```

```
st-b.id_no = 101;
```

```
printf("%d %d\n",s.x,s.b.id_no);
```

```

}

/* Ans: The answer is st-x=10;

* st-b.id_no=101;

*/

13.#include

/* This problem was asked in PCS Bombay in a walk-in-interview

* Write a recursive function that calculates

* n * (n-1) * (n-2) * ..... 2 * 1

*/

main() {

int factorial(int n);

int i,ans;

printf("\n Enter a Number:");

scanf("%d",&i);

ans = factorial(i);

printf("\nFactorial by recursion = %d\n", ans);

}

int factorial(int n)

{

if (n <= 1) return (1);

else

return ( n * factorial(n-1));

}

```

~

```
14.#include
```

```
/* This problem is asked in PCS Bombay walk-in-interview
```

```
* What is the output of the following problem
```

```
*/
```

```
main(){
```

```
int j,ans;
```

```
j = 4;
```

```
ans = count(4);
```

```
printf("%d\n",ans);
```

```
}
```

```
int count(int i)
```

```
{
```

```
if ( i < 0) return(i);
```

```
else
```

```
return( count(i-2) + count(i-1));
```

```
}
```

```
/* It is showing -18 as an answer */
```

```
15.#include
```

```
main()
```

```
{
```

```
int i=4;
```

```
if(i=0)
```

```
printf("statement 1");
```

```
else
```

```
printf("statement 2");
```

```
}
```

```
/* statement 2 */
```