## MBT Sample Paper

```
Company : MBT
Date
College
1. #include <stdio.h>
    * 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 <stdio.h>
* What is the output of the following problem
main() \{
int j;
for $(\mathrm{j}=0 ; \mathrm{j}<3 ; \mathrm{j}++$ )
foo();
\}
foo() \{
static int $\mathrm{i}=10$;
i+=10;
printf("\%dln",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 <stdio.h>
\#include <stdio.h>
\#include <string.h>
/* This is asked in PCS Bombay walk-in-interview

```
* What is wrong in the following code
*/
main()
{
    char *c;
    c = "Hello";
    printf("%sln", c);
}
/*ans:- Hello, The code is successfully running */
4. #include <stdio.h>
/* 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 1234567 */
    printf("Enter the number string:<1234 567 > \n");
    scanf("%2d%d%1d",&i,&j,&k);
    for(;k;k--,i++)
    for(l=0;l<j;|++) { lc++;
    printf("%d %dln",i,l);}
printf("LOOPS= %dln", lc-1);
}
/* Ans: i= 16, and loop is executed for 169 times */
5.#include <stdio.h>
/* 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 ln",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
        2020
```

```
*/
6.#include <stdio.h>
main()
{
    float i, j;
    scanf("%f %f", &i, &j);
        printf("%.2f %.3f", i, j);
}
/Ans:- 123.34 3.234 */
7.#include <stdio.h>
/* This is given in PCS Bombay walk-in-interview
* What is the out put of the following problem ?
*/
main()
{
    char *str = "12345";
    prinf("%c %c %cln", *str, *(str++), *(str++));
}
/* Ans: It is not 123
* But it is 321 Why ??
*/
8.#include <stdio.h>
/* 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;
        print(("%d",max(a,b));
}
/* Ans is very simple the coding is just for testing it
and output is 4*
~
9.#include <stdio.h>
/* 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 <stdio.h>
main()
{
    func(1);
}
func(int i){
static char *str ={ "One","Two","Three","Four"};
printf("%s\n",str[i++]);
return;
}
l* 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 <stdio.h>
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 <stdio.h>
/* 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 %dln",s..x,s.s.id_no);
}
/* Ans: The answer is st->x=10;
* st->b.id_no=101;
*/
13.#include <stdio.h>
/* 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;
print("\n Enter a Number:");
scanf("%d",&i);
ans = factorial(i);
printf("\nFactorial by recursion = %dln", ans);
}
int factorial(int n)
{
    if (n <= 1) return (1);
    else
    return ( n * factorial(n-1));
}
14.#include <stdio.h>
/* 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("%dln",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<stdio.h>
main()
{
int i=4;
if(i=0)
print("statement 1");
else
    printf("statement 2");
}
/* statement 2 */
```

This is pcsb paper.

1. \#include <stdio.h>
*What is wrong in the following problem
main() \{
int $i, j$;
$\mathrm{j}=10$;
$\mathrm{i}=\mathrm{j}++$ - $\mathrm{j}+\mathrm{+}$;
printf("\%d \%d", i,j);
\}
ans: 0,12
2.\#include <stdio.h>

* What is the output of the following problem
main() \{
int j;
for $(j=0 ; j<3 ; j++)$ foo();
\}
foo() \{
static int $\mathrm{i}=10$;
i+=10;
printf("\%dln",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 <stdio.h>
#include <stdio.h>
#include <string.h>
/* 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 <stdio.h>
/* 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<j;l++) { lc++;
    printf("%d %dln",i,l);}
printf("LOOPS= %dln", lc-1);
}
/* Ans: i = 16, and loop is executed for 169 times */
5.#include <stdio.h>
/* 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 ln",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
        2020
*/
6.#include <stdio.h>
main()
{
    float i, j;
    scanf("%f %f", &i, &j);
        printf("%.2f %.3f", i, j);
}
IAns:- 123.34 3. 234 */
7.\#include <stdio.h>
/* 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 %cln", *str, *(str++), *(str++));
}
/* Ans: It is not 123
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8.#include <stdio.h>
/* This problem is asked in PCS Bombay Walk-in-interview
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    */
#define max(a,b) (a>b)?a:b
main()
{
        int a,b;
        a=3;
        b=4;
        print(("%d",max(a,b));
}
/* Ans is very simple the coding is just for testing it
and output is 4*
```

```
9.#include <stdio.h>
/* 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("%cln",*st);
}
/* Ans : It will print some junk value */
10.#include <stdio.h>
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 <stdio.h>
main()
\{
int i;
for ( $\mathrm{i}=1 ; \mathrm{i}<100 ; \mathrm{i}++$ )
printf("\%d \%0xln",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 <stdio.h>
/* 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 %dln",s.x,s.b.id_no);
}
/* Ans: The answer is st->x=10;
            st->b.id_no=101;
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13.#include <stdio.h>
/* 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;
print("\n Enter a Number:");
scanf("%d",&i);
ans = factorial(i);
printf("\nFactorial by recursion = %dln", ans);
}
int factorial(int n)
{
    if (n<= 1) return (1);
    else
    return ( n * factorial(n-1));
}
14.#include <stdio.h>
/* 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("%dln",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<stdio.h>
main()
{
int i=4;
if(i=0)
print("statement 1");
else
print("statement 2");
}
/* statement 2 */
```

This is pcs pune.

1. Men in the order type - Eswar Rao
2. Optional
3. Latter
4. Cease
5. There r 3 boys 74 girls; Howmany ways they r arranged such that boys should be always together ???
(Ans: 240
6. If $n . . . .$. ; What is the max no that divides
(Ans: 8)
7. $A, B, C, D$ has values from 0 to 9 .... What is $D$ ?
(Ans: 6)
8. A wodden piece taken which is in shape of Triangle , of $10 \times 24 \times 26$; Then cut at some ..... which is rearranged in rectangle format; so what is ...
(Ans: 5)
9. There $r 5$ numbers. The average is 25 ; the highest value excluded then average is 25 , if the lowest is excluded the avg is ..
Then average of remaining is ?
(Ans: 30)
10. The square is cut such that the end point of one side is shown in fig.. This is repeated two times, what is the area ??
(Ans: 3.61 )
11. The route problem... what is the shortest rout to p 1 to $\mathrm{p} 2 . .$.
(There may be circle figure......)
(Ans: From p1 to $0 \&$ form 0 to p 8 )
12. Two motor cycles $A$ \& $B$ are started from one point at $4 \mathrm{Kmph} \& 6 \mathrm{Kmph}$; After 45 min B starts returning, at what time they will reach....
(Ans: 3.6 km )
13. All integer from 0 to 9 , what is the smallest no perfectly devides;
(Ans: c)
14. Some figure (Triangle in a rectangle)..... What is perimeter if triangle
(Ans: 20)
