

DE Shaw Technical Question Paper

1. typedef struct{
char *;
nodeptr next;
} * nodeptr;
what does nodeptr stand for?

2. supposing thaty each integer occupyes 4 bytes and each charactrer 1 byte , what is the output of the following programme?

```
#include  
main()  
{  
int a ={ 1,2,3,4,5,6,7};  
char c = {' a','x','h','o','k'};  
printf("%dt %d ", (&a[3]-&a[0]),(&c[3]-&c[0]));  
}
```

Ans : : 3 3

3. what is the output of the program?

```
#include  
main()  
{  
struct s1 {int i; };  
struct s2 {int i; };  
struct s1 st1;  
struct s2 st2;  
st1.i =5;  
st2 = st1;  
printf(" %d " , st2.i);  
}
```

Ans : : nothing (error)

expl: diff struct variables should not assigned using "=" operator.

4.what is the output of the program?

```
#include  
main()  
{  
int i,j;  
int mat[3][3] ={1,2,3,4,5,6,7,8,9};  
for (i=2;i>=0;i--)  
for ( j=2;j>=0;j--)
```

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```
printf("%d" , (*(mat+j)+i));  
}
```

Ans : : 9 6 3 8 5 2 7 4 1

```
5.  
fun(n);  
}  
int fun( int n)  
{  
int i;  
for(i=0;i<=n;i++)  
fun(n-i);  
printf(" well done");  
  
}
```

howmany times is the printf statement executed for n=10?

Ans : : zero

expl: Befire reaching to printf statement it will goes to infinite loop.

6.what is the output of the program?

```
main()  
{  
struct emp{  
char emp;  
int empno;  
float sal;  
};  
struct emp member = { "TIGER";  
printf(" %d %f", member.empno,member.sal);
```

Ans : : error. In struct variable emp, we have to give array size.

If array size given

Ans : is 0, 0.00

7. output of the program?

```
# define infiniteloop while(1)  
main()  
{  
infiniteloop;  
printf("DONE");  
}
```

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Ans : : none

expl: infiniteloop in main ends with ";" . so loop will not reach end;
and the DONE also will not print.

8. output of the program?

```
main()
{
int a=2, b=3;
printf(" %d ", a+++b);
}
```

Ans : :5

expl: here it evaluates as a++ + b.

9. output of the program?

```
#define prn(a) printf("%d",a)
#define print(a,b,c) prn(a), prn(b), prn(c)
#define max(a,b) (a

main()
{
int x=1, y=2;
print(max(x++,y),x,y);
print(max(x++,y),x,y);
}
```

Ans : : 3 4 2

10. which of the following is the correct declaration for the function main() ?

Ans : : main(int , char *)

11. if ptr is defined as

```
int *ptr[100];
which of the following correctly allocates memory for ptr?
```

Ans : : ptr = (int *) (malloc(100* sizeof(int)));