**Quiz on Pointer**

1.What would be the output of the following program?  
#include "stdio.h"  
main( ){  
printf( "%d %d", sizeof(NULL),sizeof(" " ) ); }  
(a) 1 1 (b) 1 2 (c) 2 1 (d) 2 2

2. Are the three declarations char \*\*apple, char \*orange[ ], and char cherry [ ] [ ] same?  
(a) Yes (b) No (c) Can't say (d) None  
  
3.Would the following program give any warning on compilation?  
#include "stdio.h"  
main( ){  
int \*p1,i=25;  
void \*p2;  
p1=&i;  
p2=&i;  
p1=p2;  
p2=p1; }   
(a) Yes (b) No (c) Can't say (d) None  
  
4. Are the expressions \*ptr++ and ++\*ptr same?  
(a) Yes (b) No (c) Can't Say (d) None  
  
5.Can you write another expression which does the same job as ++\*ptr?  
(a) (ptr\*)++ (b) \*ptr++ (c) ptr\*++ (d) (\*ptr)++  
  
6. What would be the equivalent pointer expression for referring the same element as a[i][j][k][l]?  
(a) \*(\*(\*(\*(a+i)+j)+k)+l) (b) \*(\*(\*(\*a[i])[j])[k])[l]) (c) both (d) None  
  
7. What would be the output of the following program ?  
main( )  
{  
int arr[ ]={12,13,14,15,16};  
printf("\n%d %d %d",sizeof(arr),sizeof(\*arr),  
sizeof(arr[0]));  
}  
  
(a) 10 4 4 (b) 10 4 2 (c) 10 2 2 (d) 10 2 4  
  
8.What would be the output of the following program assuming that the array begins at location 1002?  
main( )  
{  
int a[3][4]={1,2,3,4,  
5,6,7,8,  
9,10,11,12  
};  
printf( "\n%u %u %u",a[0]+1,\*(a[0]+1),\*(\*(a+0)+1));  
}  
(a) 1004 2 2 (b) 1004 4 4 (c) 1002 2 2 (d) 1002 4 4

9. What would be the output of the following program assuming that the array begins at location 1002?  
main( ){  
int a[2][3][4]={ {  
1,2,3,4,  
5,6,7,8,  
9,1,1,2  
},  
{  
2,1,4,7,  
6,7,8,9,  
0,0,0,0}};  
printf("\n%u %u %u %d",a,\*a,\*\*a,\*\*\*a);}  
(a) 1002 1002 1002 2 (b) 1002 1002 1002 1 (c) 1004 1004 1004 1 (d) 1004 1004 1004 2  
  
10. In the following program how would you print 50 using p?  
main( ){  
int a[ ]={10,20,30,40,50};  
char \*p;  
p = (char \*) a;}  
(a) printf("\n%d",\*( (int \*)p+4) ); (b) printf("\n%d",( (int \*)p+4) );  
(c) printf("\n%d",\*( (int )p+4) ); (d) printf("\n%d",\*( (int \*\*)p+4) );  
  
11.In the following program add a statement in the function fun( ) such that address of a gets stored in j  
main( )  
{  
int \*j;  
void fun(int \*\*);  
fun(&j);  
}  
void fun(int \*\*k)  
{  
int a=10;  
}   
(a) \*k=&a; (b) &a=\*k; (c) &k=\*a; (d) \*a=&k;

12.How would you declare an array of three function pointers where each function receives two ints and returns a float?  
(a) float (arr[3])(int,int); (b) int (arr[3])(float,float);

(c) int (\*arr[3])(float,float); (d) float(\*arr[3])(int,int);

Answers

1.Ans: c

2.Ans: b  
3.Ans: b  
4.Ans: b  
5.Ans: d  
6.Ans: a  
7.Ans: c  
8.Ans: a  
9.Ans: b  
10.Ans: a  
11.Ans: a  
12.Ans: d