One-dimensional Arrays

Q1 What will be the output of the program?

```
#include <stdio.h>
int main()
{
   int i,a[10];
   for (i=9;i>=0;i--) a[i]=10-i;
   printf("%d %d %d",a[3],a[6],a[9]);
   return 0;
}
A. 2 5 8
B. 7 4 1
C. 8 5 2
D. 3 6 9

Answer: (B)
```

a[9] = 1
a[0] = 10

Q2 What will be the output of the program?

```
#include <stdio.h>
int main()
{
   int i,n[4]={1};
   for (i=1;i<=3;i++)
   {
     n[i]=n[i-1]*2+1;
     printf("%d ",n[i]);
   }
   return 0;
}
A. 3 7 10
B. 3 6 12
C. 2 7 14
D. 3 7 15

Answer: (D)
```

n[0] = 1

n[1] = n[0] × 2 + 1

n[3] = n[2] × 2 + 1

Q3 What will be the output of the program?

```
#include <stdio.h>
int main()
{
   int a[] = {2,3,5,4},i;
   for (i=0;i<4;i++)
     switch (i%2)
```

```
    {
       case 0: switch(a[i]%2)
       {
            case 0:a[i]++; break;
            case 1:a[i]--;
       } break;
       case 1: a[i]=0;
    }
  for (i=0;i<4;i++) printf("%d ", a[i]);
  printf("\n");
  return 0;
}
```

A. 3 3 4 4
B. 2 0 5 0
C. 3 0 4 0
D. 0 3 0 4

Answer: (B) X C

Q4 What will be the output of the program?

```
#include <stdio.h>
int main()
{
   int x[]={1,2,3};
   int s,i,*p;
   s=1; p=x;
   for (i=0; i<3; i++)
      s*=*(p+i);
   printf("%d\n",s);
   return 0;
}
```

s = 1 x 1
s = 1 x 2
s = 2 x 3

A. 4
B. 5
C. 6
D. 7

Answer: (C)

Q5 What will be the output of the program?

```
#include <stdio.h>
int main()
{
   int a[10] = {1,2,3,4,5,6,7,8,9,10},*p=&a[3],*q=p+2;
   printf("%d\n",*p+*q);
```

*4 6
a[5]

```
   return 0;
}
```

A. 16
B. 10
C. 8
D. 6

Answer: (B)

Q6 What will be the output of the program?

```
#include <stdio.h>
int main()
{
   int a[] = { 1,2,3,4,5,6 };
   int *p;
   p = a;
   printf("%d ", *p);
   printf("%d ", *(++p));
   printf("%d ", *++p);
   printf("%d ", *(p--));
   p += 3;
   printf("%d %d\n", *p, *(a+3));
   return 0;
}
```

A. 1 2 2 3 5 4
B. 1 2 3 3 5 4
C. 1 2 3 4 5 4
D. 1 2 3 4 6 4

Answer: (B)

Q7 What will be the output of the program?

```
#include <stdio.h>
int b=2;
int fun(int *k);
int main()
{
   int a[10] = {1,2,3,4,5,6,7,8},i;
   for (i=2;i<4;i++)
   {
      b=fun(&a[i])+b;
      printf("%d ",b);
   }
   printf("\n");
   return 0;
```

```
}
int fun(int *k)
{
   b=*k+b; return(b);
}
```

A. 10 12
B. 8 10
C. 10 28
D. 10 16

Answer: (A) ×C

b = 5+5 = 10

b = 3+2 = 5

b = 4+10 = 14

b is global variable

Q8 What will be the output of the program?

```
#include <stdio.h>
void fun(int b[]);
int main()
{
   int a[4],i;
   fun(a);
   for (i=0;i<4;i++)
      printf("%d ",a[i]);
   return 0;
}
void fun(int b[])
{
   int j;
   for ( j=0; j<4; j++ )
      b[j] = j;
}
```

b[0] b[3]
0 1 2 3 4

A. 0 1 2 3
B. 1 2 3 4
C. 2 3 4 5
D. 3 4 5 6

Answer: (A) ✓

Q9 What will be the output of the program?

```
#include <stdio.h>
void change(int *b, int n);
int main()
{
   int i, a[] = {2, 4, 6, 8, 10};
   change(a, 5);
   for(i=0; i<=4; i++)
      printf("%d ", a[i]);
```

```
   return 0;
}
void change(int *b, int n)
{
   int i;
   for(i=0; i<n; i++)
      *(b+1) = *(b+i)+5;
}
A. 7 9 11 13 15
B. 2 15 6 8 10
C. 2 4 6 8 10
D. 3 1 -1 -3 -5
```

Answer: (A) ✗ B

Q10 What will be the output of the program?

```
#include <stdio.h>
#define MAX 10
int a[MAX],i;
void sub1();
void sub2();
void sub3(int a[]);
int main()
{
   printf("\n"); sub1(); sub2(); sub3(a);
   return 0;
}
void sub1()
{
   for (i=0;i<MAX;i++) a[i]=i+1;
}
void sub2()
{
   int a[MAX],i,max;
   max=5;
   for (i=0;i<max;i++) a[i]=i;
}
void sub3(int a[])
{
   int i;
   for (i=0;i<MAX;i++) printf("%d ",a[i]);
   printf("\n");
}
A. 0 2 4 6 8 10 12 14 16 18
B. 1 3 5 7 9 11 13 15 17 19
C. 0 1 2 3 4 5 6 7 8 9
D. 1 2 3 4 5 6 7 8 9 10
```

Answer: (D)