1.

What will be the output of the program ?

```
#include<stdio.h>
int main()
{
   static char *s[] = {"black", "white", "pink", "violet"};
   char **ptr[] = {s+3, s+2, s+1, s}, ***p;
   p = ptr;
   ++p;
   printf("%s", **p+1);
   return 0;
}
```

A. ink B. ack C. ite D. let

2. What will be the output of the program ?

```
#include<stdio.h>
int main()
{
   int i=3, *j, k;
   j = &i;
   printf("%d\n", i**j*i+*j);
   return 0;
}
```

A. 30 B. 27 C. 9 D. 3

.

3. What will be the output of the program ?

```
#include<stdio.h>
int main()
{
   int x=30, *y, *z;
   y=&x; /* Assume address of x is 500 and integer is 4 byte size */
   z=y;
   *y++=*z++;
   x++;
   printf("x=%d, y=%d, z=%d\n", x, y, z);
   return 0;
}
```

A. x=31, y=502, z=502 B. x=31, y=500, z=500
C. x=31, y=498, z=498 D. x=31, y=504, z=504

4. What will be the output of the program ?

```
#include<stdio.h>
int main()
{
   char str[20] = "Hello";
   char *const p=str;
   *p='M';
   printf("%s\n", str);
   return 0;
}
```

A. Mello B. Hello
C. HMello D. MHello

5. What will be the output of the program If the integer is 4bytes long?

```
#include<stdio.h>
int main()
{
   int ***r, **q, *p, i=8;
   p = &i;
   q = &p;
   r = &q;
   printf("%d, %d, %d\n", *p, **q, ***r);
   return 0;
```

```
}
```

A. 8, 8, 8 B. 4000, 4002, 4004

C. 4000, 4004, 4008 D. 4000, 4008, 4016

6.

What will be the output of the program ?

```
#include<stdio.h>
void fun(void *p);
int i;
int main()
{
   void  *vptr;
   vptr = &i;
   fun(vptr);
   return 0;
}
void fun(void *p)
{
   int **q;
   q = (int**)&p;
   printf("%d\n", **q);
}
```

A. Error: cannot convert from void** to int**

B. Garbage value

C. 0

D. No output

7. What will be the output of the program ?

```
#include<stdio.h>
int main()
{
   char *str;
   str = "%s";
   printf(str, "K\n");
   return 0;
}
```

A. Error B. No output

C. K D. %s

8. What will be the output of the program ?

```
#include<stdio.h>
int *check(static int, static int);

int main()
{
   int *c;
   c = check(10, 20);
   printf("%d\n", c);
   return 0;
}
int *check(static int i, static int j)
```

```
{
   int *p, *q;
   p = &i;
   q = &j;
   if(i >= 45)
      return (p);
   else
      return (q);
}
```

A. 10

B. 20

C. Error: Non portable pointer conversion

D. Error: cannot use static for function parameters

9.

What will be the output of the program if the size of pointer is 4-bytes?

```
#include<stdio.h>

int main()
{
   printf("%d, %d\n", sizeof(NULL), sizeof(""));
   return 0;
}
```

A. 2, 1 B. 2, 2

C. 4, 1 D. 4, 2

10.

What will be the output of the program ?

```
#include<stdio.h>

int main()
{
   void *vp;
   char ch=74, *cp="JACK";
   int j=65;
   vp=&ch;
   printf("%c", *(char*)vp);
   vp=&j;
   printf("%c", *(int*)vp);
   vp=cp;
   printf("%s", (char*)vp+2);
   return 0;
}
```

A. JCK B. J65K

C. JAK D. JACK

11.

What will be the output of the program?

```
#include<stdio.h>
```

```
int main()
{
   int arr[2][2][2] = {10, 2, 3, 4, 5, 6, 7, 8};
   int *p, *q;
   p = &arr[1][1][1];
   q = (int*) arr;
   printf("%d, %d\n", *p, *q);
   return 0;
}
```

A. 8, 10 B. 10, 2

C. 8, 1 D. Garbage values

12.

What will be the output of the program assuming that the array begins at the location 1002 and size of an integer is 4 bytes?

```
#include<stdio.h>

int main()
{
   int a[3][4] = { 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12 };
   printf("%u, %u, %u\n", a[0]+1, *(a[0]+1), *(*(a+0)+1));
   return 0;
}
```

A. 448, 4, 4 B. 520, 2, 2

C. 1006, 2, 2 D. Error

13.

What will be the output of the program?

```
#include<stdio.h>

int main()
{
   int arr[3] = {2, 3, 4};
   char *p;
   p = arr;
   p = (char*)((int*)(p));
   printf("%d, ", *p);
   p = (int*)(p+1);
   printf("%d", *p);
   return 0;
}
```

A. 2, 3 B. 2, 0

C. 2, Garbage value D. 0, 0

14.

What will be the output of the program ?

```
#include<stdio.h>

int main()
```

```
{
   char *str;
   str = "%d\n";
   str++;
   str++;
   printf(str-2, 300);
   return 0;
}
```

A. No output B. 30

C. 3 D. 300

15. What will be the output of the program ?

```
#include<stdio.h>

int main()
{
   printf("%c\n", 7["IndiaBIX"]);
   return 0;
}
```

A. Error: in printf B. Nothing will print

C. print "X" of IndiaBIX D. print "7"

16. What will be the output of the program ?

```
#include<stdio.h>

int main()
```

```
{
   char str[] = "peace";
   char *s = str;
   printf("%s\n", s++ +3);
   return 0;
}
```

A. peace B. eace

C. ace D. ce

17. What will be the output of the program ?

```
#include<stdio.h>
int main()
{
   char *p;
   p="hello";
   printf("%s\n", *&*&p);
   return 0;
}
```

A. llo B. hello

C. ello D. h

18. What will be the output of the program assuming that the array begins at location 1002?

```
#include<stdio.h>
int 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("%u, %u, %u, %d\n", a, *a, **a, ***a);
    return 0;
}
```

A. 1002, 2004, 4008, 2 B. 2004, 4008, 8016, 1

C. 1002, 1002, 1002, 1 D. Error

19. What will be the output of the program ?

```
#include<stdio.h>
power(int**);
int main()
{
    int a=5, *aa; /* Address of 'a' is 1000 */
    aa = &a;
    a = power(&aa);
    printf("%d\n", a);
    return 0;
}
power(int **ptr)
{
    int b;
    b = **ptr***ptr;
    return (b);
}
```

A. 5 B. 25

C. 125 D. Garbage value

20.What will be the output of the program ?

```
#include<stdio.h>
int main()
{
   char str1[] = "India";
   char str2[] = "BIX";
   char *s1 = str1, *s2=str2;
   while(*s1++ = *s2++)
      printf("%s", str1);

   printf("\n");
   return 0;
}
```

A. IndiaBIX B. BndiaBIdiaBIXia

C. India D. (null)

21. What will be the output of the program ?

```
#include<stdio.h>
#include<string.h>
int main()
{
   int i, n;
   char *x="Alice";
   n = strlen(x);
   *x = x[n];
   for(i=0; i<=n; i++)
```

```
    {
        printf("%s ", x);
        x++;
    }
    printf("\n", x);
    return 0;
}
```

A. Alice B. ecilA

C. Alice lice ice ce e D. lice ice ce e

22. What will be the output of the program ?

```
#include<stdio.h>
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

23.If the size of integer is 4bytes, What will be the output of the program?

```
#include<stdio.h>
int main()
{
   int arr[] = {12, 13, 14, 15, 16};
   printf("%d, %d, %d\n", sizeof(arr), sizeof(*arr), sizeof(arr[0]));
   return 0;
}
```

A. 10, 2, 4 B. 20, 4, 4

C. 16, 2, 2 D. 20, 2, 2

Ref: http://www.indiabix.com/c-programming/pointers/038001