Technical SAP Software Solutions Sample Question Paper

1. If int is 2 bytes wide. What will be the output of the program?
   #include
   void fun(char**);
   int main()
   {
   char *argv[] = {“ab”, “cd”, “ef”, “gh”};
   fun(argv);
   return 0;
   }
   void fun(char **p)
   {
   char *t;
   t = (p+= sizeof(int))[-1];
   printf(“%sn”, t);
   }
   
   A. ab
   B. cd
   C. ef
   D. gh

   Answer: B

2. What will be the output of the program if the array begins at 65486 and each integer occupies 2 bytes?
   int main()
   {
   int arr[] = {12, 14, 15, 23, 45};
   printf(“%u, %un”, arr+1, &arr+1);
   return 0;
A.12, 65490  
B.14, 65492  
C.65488, 65496  
D.64490, 65498  

Answer: C

Solution:
Here, the base address (also the address of first element) of the array is 65486. => Here, arr is reference to arr has type “pointer to int”. Therefore, arr+1 is pointing to second element of the array arr memory location. Hence 65486 + 2 bytes = 65488 => Then, &arr is “pointer to array of 5 ints”. Therefore, &arr+1 denotes “5 ints * 2 bytes * 1 = 10 bytes”. Hence, begining address 65486 + 10 = 65496. So, &arr+1 = 65496. Hence the output of the program is 65488, 65496.

3. Recursive functions are executed in a

A. last in first out order  
B. first in First out order  
C. Are maintained in a stack  
D. none of the above  

Answer: A  

4. What will be the output of the program?
#include
int main()
{
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```c
int i=3, j=4, k, l;
k = addmult(i, j);
l = addmult(i, j);
printf("%d %dn", k, l);
return 0;
}
int addmult(int ii, int jj);
{
int kk, ll;
kk = ii + jj;
ll = ii * jj;
return (kk, ll);
}
```

A. Function addmult() return 7 and 12
B. No output
C. Error: Compile error
D. None of above

Answer: C

Solution:
There is an error in this statement int addmult(int ii, int jj);. We have to remove the semi-colon, because it was an definition of the function addmult().

5. Point out the error if any in the while loop.

```c
main()
{
int i =0;
```
while()
{
printf("%d",i++);
if(i>10)
broke;
}

A. the condition in the while loop is a must
B. the while loop must be replaced by a for loop
C. All of the Above
D. None

Answer: A

6. What will be the output of the program?
#include
void fun(int);
int main()
{
    int a=3;
    fun(a);
    return 0;
}
void fun(int n)
{
    if(n > 0)
    {
        fun(-n);
        printf("%d,, n);
        fun(-n);
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7. What will be output of following c program?

```c
int main()
{
    printf("1");
    printf("0");
    printf("2");
    printf("Sachin");
    return 0;
}
```

A. 10sachin2
B. 10sachin
C. 10sachin210sachin2
D. 10

Answer: D

8. What will be the output of the program?

```c
#include
int main()
{
    int fun();
    int i;
```
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```c
i = fun();
printf("%dn", i);
return 0;
}
int fun()
{
    _AX = 1990;
}
```

A. Garbage value
B. 0 (Zero)
C. 1990
D. No output

Answer: C

Solution:
The return value of the function is taken from the Accumulator _AX=1990.

9. What will be output of following c program?
```c
void main()
{
    int a[]={5,10,15};
    int i=0,num;
    num=a[++i]+ ++i+(++i);
    printf("%d",num);
}
```

A. 6
B. 17
C. 16
D.12

Answer: A

10. What will be the output of the program?
#include
int main()
{
    int i = 5;
    while(i– >= 0)
        printf("%d,", i);
    i = 5;
    printf("n");
    while(i– >= 0)
        printf("%i,", i);
    while(i– >= 0)
        printf("%d,", i);
    return 0;
}

A. 4, 3, 2, 1, 0, -1
B. 5, 4, 3, 2, 1, 0
C. Error
D. 5, 4, 3, 2, 1, 0
5, 4, 3, 2, 1, 0
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A.A
B.B
C.C
D.D

Answer: A

11. Point out the error in the following program.
#include
int main()
{
char str[] = "Freshersworld";
printf("%.#s %2s", str, str);
return 0;
}

A.in Array declaration
B.printf statement
C.unspecified character in printf
D.No error

Answer: D

12. Find the output of following snippet?
#include
void main()
{
char letter = ‘Z’;
printf(“%c”,letter);
}
13. What will be the output of the program?
#include
#define SQR(x)(x*x)
int main()
{
    int a, b=3;
    a = SQR(b+2);
    printf("%dn", a);
    return 0;
}

A.25
B.11
C.Error
D.Garbage value

Answer: B

Solution:
a = SQR(b+2); becomes, => a = b+2 * b+2; Here SQR(x) is replaced by macro to x*x . => a = 3+2 * 3+2; => a = 3 + 6 + 2; => a = 11;

14. What will be the output of the program if value 25 given to scanf()?
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```c
#include
int main()
{
    int i;
    printf("%dn", scanf("%d", &i));
    return 0;
}
```

A.1  
B.2  
C.5  
D.25

Answer: A

Solution:
The `scanf` function returns the number of input is given. `printf("%dn", scanf("%d", &i));` The `scanf` function returns the value 1(one). Therefore, the output of the program is ‘1’.

15. `void main()
{
    char far *farther, *farthest;
    printf("%d..%d", sizeof(farther), sizeof(farthest));
}
`

What is the output of above snippet?

A.2.4  
B.syntax error  
C.compiler error
D.4.2

Answer: D

16. What will be the content of ‘file.c’ after executing the following program?
#include
int main()
{
    FILE *fp1, *fp2;
    fp1=fopen("file.c", "w");
    fp2=fopen("file.c", "w");
    fputc('A', fp1);
    fputc('B', fp2);
    fclose(fp1);
    fclose(fp2);
    return 0;
}

A. B
B. A B
C. B B
D. Error in opening file ‘file1.c’

Answer: A

17. What is the output of following snippet?
main()
{
    int c[] = { 2.8,3.4,4,6.7,5};
    int j,*p=c,*q=c;
    for(j=0;j<5;j++)
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```c
{  
printf("%d",*c);
++q;
}
for (j =0; j<5;j++)
{
printf("%d",*p);
++p;
}
}
```

A. syntax error  
B. compiler error  
C. 2 2 2 2 2 2 3 4 6 5  
D. 5 6 2 5 2 2 2

Answer: C

18. What will be the output of the program ?

```c
#include
int main()
{
float arr[] = {12.4, 2.3, 4.5, 6.7};
printf("%dn", sizeof(arr)/sizeof(arr[0]));
return 0;
}
```

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

Solution:
The variable arr has 4 elements. The size of the float variable is 4 bytes. Hence 4 elements x 4 bytes = 16 bytes. sizeof(arr[0]) is 4 bytes. Hence 16/4 is 4 bytes. Hence the output of the program is ‘4’.

19. main()
{
    char *p;
    p ="Hello";
    printf ("%cn" *&*p);
}

What is the output of above snippet?

A.H
B.syntax error
C.compiler error
D.E

Answer: A

20. main()
{
    int i;
    print("%d",scanf("%d",&i));
    // value 10 is given to the input here
}

What is the output of above snippet?
A. compiler error
B. syntax error
C. syntax error
D. 2

Answer: A

21. What will be output of following c program?
void main()
{
int a,i=4;
a=- -i++ -i+- -5;
printf("%d %d",a,i);
}

A. 13 4
B. -3 2
C. 7 2
D. -13 4

Answer: A

22. Find the output from following program?
#include
int main()
{
int a = 10, b;
a >=5 ? b=100: b=200;
printf("%d\n", b);
return 0;
}
A.100
B.200
C.Error: L value required for b
D.Garbage value

Answer: C

Solution:
variable b is not assigned

23. What will be output of following c program?
void main()
{
    int z;
    z=(5,3,2);
    printf("%d",z);
}

A.5
B.3
C.2
D.10

Answer: C

24. What will be the output of the program?
#include
int main()
{
    unsigned int i = 65535;
}
/* Assume 2 byte integer*/
while (i++ != 0)
printf("%d", ++i);
printf("n");
return 0;
}

A. Infinite loop
B. 0 1 2 ... 65535
C. 0 1 2 ... 32767 - 32766 -32765 -1 0
D. No output

Answer: A

25. What will be output of following c program?
int main()
{
float **(*ptr)[4]=(float **(*)[4]);
ptr+=5;
printf("%d %d", ptr, sizeof ptr); return 0;
}

A. 0 2
B. 5 2
C. 4 2
D. 40 2

Answer: D

26. What will be output of following c program?
struct myStruct
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```c
{
    int a;
    char b;
}
*ptr;
int main()
{
    struct myStruct ms={400,'A'};
    printf("%d %d",ptr->a,ptr->b);
    return 0;
}
```

A.400 A  
B.400 65  
C.400 97  
D.0 0

Answer: D

27. What will be the output of the program?
```c
#include
int main()
{
    int i;
    i = printf("How r un");
    i = printf("%d", i);
    printf("%d", i);
    return 0;
}
```

A. How r u 7 2
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B. How r u 8 2
C. How r u 1 1
D. Error: cannot assign printf to variable

Answer: B

28. What will be output of following c program?
#include “string.h”
typedef struct stu1
{
int roll;
char *name;
double marks;
}
STU1;
typedef struct stu2
{
int roll;
char *name;
double marks;
}
STU2;
void main()
{
STU1 s1={25,”Rohit”,87.43},*p1;
STU2 *p2; p1=&s1;
memcpy(p2,p1,4);
printf(“Roll : %dn”,p2->roll);
printf(“Name : %sn”,p2->name);
printf(“Marks : %lf”,p2->marks);
}

A. Roll: 25 Name: Rohit Marks: 87.430000
B. Roll: 25 Name: Rohit Marks: 0.000000
C. Roll: 0 Name: Rohit Marks: 87.430000
D. Roll: 0 Name: null Marks: 0.000000

Answer: B

29. Assume integer is 2 bytes wide. How many bytes will be allocated for the following code?
#include 
#include 
#define MAXROW 3
#define MAXCOL 4
int main()
{
int (*p)[MAXCOL];
p = (int (*) [MAXCOL])malloc(MAXROW *sizeof(*p));
return 0;
}

A. 56 bytes
B. 128 bytes
C. 24 bytes
D. 12 bytes

Answer: C

30. What will be output when you will execute following c code?
void main()
{

volatile int a=11;
printf("%d",a);
}

A. Garbage
B. 11
C. 2
D. We cannot predict

Answer: D