英文题库C

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# 4. Pointers and Arrays

## [Pointers and Addresses – 1](http://www.sanfoundry.com/c-quiz-pointers-addresses/)

1. What is the output of this C code?

1. #include <stdio.h>
2. void main()
3. {
4. int k = 5;
5. int \*p = &k;
6. int \*\*m = &p;
7. printf("%d%d%d**\n**", k, \*p, \*\*m);
8. }

a) 5 5 5  
b) 5 5 junk value  
c) 5 junk junk  
d) Run time error  
View Answer

Answer:a

2. What is the output of this C code?

1. #include <stdio.h>
2. void main()
3. {
4. int k = 5;
5. int \*p = &k;
6. int \*\*m = &p;
7. printf("%d%d%d**\n**", k, \*p, \*\*p);
8. }

a) 5 5 5  
b) 5 5 junk value  
c) 5 junk junk  
d) Compile time error  
View Answer

Answer:d

3. What is the output of this C code?

1. #include <stdio.h>
2. void main()
3. {
4. int k = 5;
5. int \*p = &k;
6. int \*\*m = &p;
7. \*\*m = 6;
8. printf("%d**\n**", k);
9. }

a) 5  
b) Compile time error  
c) 6  
d) Junk  
View Answer

Answer:c

4. What is the output of this C code?

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

a) 1  
b) Compile time error  
c) Address of a  
d) Junk value  
View Answer

Answer:b

5. What is the output of this C code?

1. #include <stdio.h>
2. void main()
3. {
4. int a[3] = {1, 2, 3};
5. int \*p = a;
6. int \*\*r = &p;
7. printf("%p %p", \*r, a);
8. }

a) Different address is printed  
b) 1 2  
c) Same address is printed.  
d) 1 1  
View Answer

Answer:c

6. How many number of pointer (\*) does C have against a pointer variable declaration?  
a) 7  
b) 127  
c) 255  
d) No limits.  
View Answer

Answer:d

7. What is the output of this C code?

1. #include <stdio.h>
2. int main()
3. {
4. int a = 1, b = 2, c = 3;
5. int \*ptr1 = &a, \*ptr2 = &b, \*ptr3 = &c;
6. int \*\*sptr = &ptr1; *//-Ref*
7. \*sptr = ptr2;
8. }

a) ptr1 points to a  
b) ptr1 points to b  
c) sptr points to ptr2  
d) None of the mentioned  
View Answer

Answer:b

8. What is the output of this C code?

1. #include <stdio.h>
2. void main()
3. {
4. int a[3] = {1, 2, 3};
5. int \*p = a;
6. int \*\*r = &p;
7. printf("%p %p", \*r, a);
8. }

a) Different address is printed  
b) 1 2  
c) Same address is printed.  
d) 1 1  
View Answer

Answer:c

## [Pointers and Function Arguments – 1](http://www.sanfoundry.com/multiple-choice-questions-c-pointers-function-arguments/)

1. What is the output of this C code?

1. #include <stdio.h>
2. void foo(int\*);
3. int main()
4. {
5. int i = 10;
6. foo((&i)++);
7. }
8. void foo(int \*p)
9. {
10. printf("%d**\n**", \*p);
11. }

a) 10  
b) Some garbage value  
c) Compile time error  
d) Segmentation fault/code crash  
View Answer

Answer:c

2. What is the output of this C code?

1. #include <stdio.h>
2. void foo(int\*);
3. int main()
4. {
5. int i = 10, \*p = &i;
6. foo(p++);
7. }
8. void foo(int \*p)
9. {
10. printf("%d**\n**", \*p);
11. }

a) 10  
b) Some garbage value  
c) Compile time error  
d) Segmentation fault  
View Answer

Answer:a

3. What is the output of this C code?

1. #include <stdio.h>
2. void foo(float \*);
3. int main()
4. {
5. int i = 10, \*p = &i;
6. foo(&i);
7. }
8. void foo(float \*p)
9. {
10. printf("%f**\n**", \*p);
11. }

a) 10.000000  
b) 0.000000  
c) Compile time error  
d) Undefined behaviour  
View Answer

Answer:b

4. What is the output of this C code?

1. #include <stdio.h>
2. int main()
3. {
4. int i = 97, \*p = &i;
5. foo(&i);
6. printf("%d ", \*p);
7. }
8. void foo(int \*p)
9. {
10. int j = 2;
11. p = &j;
12. printf("%d ", \*p);
13. }

a) 2 97  
b) 2 2  
c) Compile time error  
d) Segmentation fault/code crash  
View Answer

Answer:a

5. What is the output of this C code?

1. #include <stdio.h>
2. int main()
3. {
4. int i = 97, \*p = &i;
5. foo(&p);
6. printf("%d ", \*p);
7. return 0;
8. }
9. void foo(int \*\*p)
10. {
11. int j = 2;
12. \*p = &j;
13. printf("%d ", \*\*p);
14. }

a) 2 2  
b) 2 97  
c) Undefined behaviour  
d) Segmentation fault/code crash  
View Answer

Answer:a

6. What is the output of this C code?

1. #include <stdio.h>
2. int main()
3. {
4. int i = 11;
5. int \*p = &i;
6. foo(&p);
7. printf("%d ", \*p);
8. }
9. void foo(int \*const \*p)
10. {
11. int j = 10;
12. \*p = &j;
13. printf("%d ", \*\*p);
14. }

a) Compile time error  
b) 10 10  
c) Undefined behaviour  
d) 10 11  
View Answer

Answer:a

7. What is the output of this C code?

1. #include <stdio.h>
2. int main()
3. {
4. int i = 10;
5. int \*p = &i;
6. foo(&p);
7. printf("%d ", \*p);
8. printf("%d ", \*p);
9. }
10. void foo(int \*\*const p)
11. {
12. int j = 11;
13. \*p = &j;
14. printf("%d ", \*\*p);
15. }

a) 11 11 11  
b) 11 11 Undefined-value  
c) Compile time error  
d) Segmentation fault/code-crash  
View Answer

Answer:b

8. What is the output of the code below?

1. #include <stdio.h>
2. int main()
3. {
4. int i = 10;
5. int \*const p = &i;
6. foo(&p);
7. printf("%d**\n**", \*p);
8. }
9. void foo(int \*\*p)
10. {
11. int j = 11;
12. \*p = &j;
13. printf("%d**\n**", \*\*p);
14. }

a) 11 11  
b) Undefined behaviour  
c) Compile time error  
d) Segmentation fault/code-crash  
View Answer

Answer:a

9. Which of the following are correct syntaxes to send an array as a parameter to function:  
a) func(&array);  
b) func(array);  
c) func(\*array);  
d) func(array[size]);  
View Answer

Answer:a & b

## [Pointers and Arrays – 1](http://www.sanfoundry.com/c-quiz-questions-pointers-arrays/)

1. What is the output of this C code?

1. #include <stdio.h>
2. void main()
3. {
4. int a[3] = {1, 2, 3};
5. int \*p = a;
6. printf("%p**\t**%p", p, a);
7. }

a) Same address is printed.  
b) Different address is printed.  
c) Compile time error  
d) Nothing  
View Answer

Answer:a

2. What is the output of this C code?

1. #include <stdio.h>
2. void main()
3. {
4. char \*s = "hello";
5. char \*p = s;
6. printf("%p**\t**%p", p, s);
7. }

a) Different address is printed  
b) Same address is printed  
c) Run time error  
d) Nothing  
View Answer

Answer:b

3. What is the output of this C code?

1. #include <stdio.h>
2. void main()
3. {
4. char \*s= "hello";
5. char \*p = s;
6. printf("%c**\t**%c", p[0], s[1]);
7. }

a) Run time error  
b) h h  
c) h e  
d) h l  
View Answer

Answer:c

4. What is the output of this C code?

1. #include <stdio.h>
2. void main()
3. {
4. char \*s= "hello";
5. char \*p = s;
6. printf("%c**\t**%c", \*(p + 3), s[1]);
7. }

a) h e  
b) l l  
c) l o  
d) l e  
View Answer

Answer:d

5. What is the output of this C code?

1. #include <stdio.h>
2. void main()
3. {
4. char \*s= "hello";
5. char \*p = s;
6. printf("%c**\t**%c", 1[p], s[1]);
7. }

a) h h  
b) Run time error  
c) l l  
d) e e  
View Answer

Answer:d

6. What is the output of the code given below?

1. #include <stdio.h>
2. void foo( int[] );
3. int main()
4. {
5. int ary[4] = {1, 2, 3, 4};
6. foo(ary);
7. printf("%d ", ary[0]);
8. }
9. void foo(int p[4])
10. {
11. int i = 10;
12. p = &i;
13. printf("%d ", p[0]);
14. }

a) 10 10  
b) Compile time error  
c) 10 1  
d) Undefined behaviour  
View Answer

Answer:c

7. What is the output of the code given below?

1. #include <stdio.h>
2. int main()
3. {
4. int ary[4] = {1, 2, 3, 4};
5. int \*p = ary + 3;
6. printf("%d**\n**", p[-2]);
7. }

a) 1  
b) 2  
c) Compile time error  
d) Some garbage value  
View Answer

Answer:b

8. What is the output of the code given below?

1. #include <stdio.h>
2. int main()
3. {
4. int ary[4] = {1, 2, 3, 4};
5. int \*p = ary + 3;
6. printf("%d %d**\n**", p[-2], ary[\*p]);
7. }

a) 2 3  
b) Compile time error  
c) 2 4  
d) 2 somegarbagevalue  
View Answer

Answer:d

## [Address Arithmetic – 1](http://www.sanfoundry.com/c-puzzles-address-arithmetic/)

1. What is the output of this C code?

1. #include <stdio.h>
2. int main()
3. {
4. double \*ptr = (double \*)100;
5. ptr = ptr + 2;
6. printf("%u", ptr);
7. }

a) 102  
b) 104  
c) 108  
d) 116  
View Answer

Answer:d

2. Comment on the output of this C code?

1. #include <stdio.h>
2. int main()
3. {
4. int \*p = (int \*)2;
5. int \*q = (int \*)3;
6. printf("%d", p + q);
7. }

a) 2  
b) 3  
c) 5  
d) Compile time error  
View Answer

Answer:d

3. Which of the following operand can be applied to pointers p and q?  
     (Assuming initialization as int \*a = (int \*)2; int \*b = (int \*)3;)  
a) a + b  
b) a – b  
c) a \* b  
d) a / b  
View Answer

Answer:b

4. What is the size of \*ptr in a 32-bit machine, (assuming initialization as int \*ptr = 10;)?  
a) 1  
b) 2  
c) 4  
d) 8  
View Answer

Answer:c

5. Which of following logical operation can be applied to pointers?  
    (Assuming initialization int \*a = 2; int \*b = 3;)  
a) a | b  
b) a ^ b  
c) a & b  
d) None of the mentioned  
View Answer

Answer:d

6. What is the output of this C code?

1. #include <stdio.h>
2. void main()
3. {
4. char \*s = "hello";
5. char \*p = s;
6. printf("%c**\t**%c", \*(p + 1), s[1]);
7. }

a) h e  
b) e l  
c) h h  
d) e e  
View Answer

Answer:d

7. What is the output of this C code?

1. #include <stdio.h>
2. void main()
3. {
4. char \*s = "hello";
5. char \*p = s;
6. printf("%c**\t**%c", \*p, s[1]);
7. }

a) e h  
b) Compile time error  
c) h h  
d) h e  
View Answer

Answer:d

8. What is the output of this C code?

1. #include <stdio.h>
2. void main()
3. {
4. char \*s = "hello";
5. char \*n = "cjn";
6. char \*p = s + n;
7. printf("%c**\t**%c", \*p, s[1]);
8. }

a) h e  
b) Compile time error  
c) c o  
d) h n  
View Answer

Answer:b

## [Character Pointers and Functions – 1](http://www.sanfoundry.com/interview-questions-c-character-pointers-functions/)

1. What is the output of this C code?

1. #include <stdio.h>
2. int main()
3. {
4. char \*str = "hello, world**\n**";
5. char \*strc = "good morning**\n**";
6. strcpy(strc, str);
7. printf("%s**\n**", strc);
8. return 0;
9. }

a) hello, world  
b) Crash/segmentation fault  
c) Undefined behaviour  
d) Run time error  
View Answer

Answer:b

2. What is the output of this C code?

1. #include <stdio.h>
2. int main()
3. {
4. char \*str = "hello world";
5. char strc[] = "good morning india**\n**";
6. strcpy(strc, str);
7. printf("%s**\n**", strc);
8. return 0;
9. }

a) hello world  
b) hello worldg india  
c) Compile time error  
d) Undefined behaviour  
View Answer

Answer:a

3. What is the output of this C code?

1. #include <stdio.h>
2. int main()
3. {
4. char \*str = "hello, world!!**\n**";
5. char strc[] = "good morning**\n**";
6. strcpy(strc, str);
7. printf("%s**\n**", strc);
8. return 0;
9. }

a) hello, world!!  
b) Compile time error  
c) Undefined behaviour  
d) Segmenation fault  
View Answer

Answer:c

4. What is the output of this C code?

1. #include <stdio.h>
2. int main()
3. {
4. char \*str = "hello, world**\n**";
5. str[5] = '.';
6. printf("%s**\n**", str);
7. return 0;
8. }

a) hello. world  
b) hello, world  
c) Compile error  
d) Segmentation fault  
View Answer

Answer:d

5. What is the output of this C code?

1. #include <stdio.h>
2. int main()
3. {
4. char str[] = "hello, world";
5. str[5] = '.';
6. printf("%s**\n**", str);
7. return 0;
8. }

a) hello. world  
b) hello, world  
c) Compile error  
d) Segmentation fault  
View Answer

Answer:a

6. What is the output of this C code?

1. #include <stdio.h>
2. int main()
3. {
4. char \*str = "hello world";
5. char strary[] = "hello world";
6. printf("%d %d**\n**", sizeof(str), sizeof(strary));
7. return 0;
8. }

a) 11 11  
b) 12 12  
c) 4 12  
d) 4 11  
View Answer

Answer:c

7. What is the output of this C code?

1. #include <stdio.h>
2. int main()
3. {
4. char \*str = "hello world";
5. char strary[] = "hello world";
6. printf("%d %d**\n**", strlen(str), strlen(strary));
7. return 0;
8. }

a) 11 11  
b) 12 11  
c) 11 12  
d) x 11 where x can be any positive integer.  
View Answer

Answer:a

8. What is the output of this C code?

1. #include <stdio.h>
2. void f(char \*k)
3. {
4. k++;
5. k[2] = 'm';
6. printf("%c**\n**", \*k);
7. }
8. void main()
9. {
10. char s[] = "hello";
11. f(s);
12. }

a) l  
b) e  
c) h  
d) o  
View Answer

Answer:b

9. What is the output of this C code?

1. #include <stdio.h>
2. void fun(char \*k)
3. {
4. printf("%s", k);
5. }
6. void main()
7. {
8. char s[] = "hello";
9. fun(s);
10. }

a) hello  
b) Run time error  
c) Nothing  
d) h  
View Answer

Answer:a

## [Pointers to Pointers – 1](http://www.sanfoundry.com/c-programming-questions-answers-pointers-pointers-1/)

1. What substitution should be made to //-Ref such that ptr1 points to variable C?

1. #include <stdio.h>
2. int main()
3. {
4. int a = 1, b = 2, c = 3;
5. int \*ptr1 = &a;
6. int \*\*sptr = &ptr1;
7. *//-Ref*
8. }

a) \*sptr = &c;  
b) \*\*sptr = &c;  
c) \*ptr1 = &c;  
d) None of the mentioned.  
View Answer

Answer:a

2. Which of the following declaration throw run-time error?  
a) int \*\*c = &c;  
b) int \*\*c = &\*c;  
c) int \*\*c = \*\*c;  
d) None of the mentioned  
View Answer

Answer:d

3. Comment on the output of this C code?

1. #include <stdio.h>
2. int main()
3. {
4. int a = 10;
5. int \*\*c -= &&a;
6. }

a) You cannot apply any arithmetic operand to a pointer.  
b) We don’t have address of an address operator  
c) Both (a) and (b)  
d) None of the mentioned.  
View Answer

Answer:b

4. What is the output of this C code?

1. #include <stdio.h>
2. void main()
3. {
4. int k = 5;
5. int \*p = &k;
6. int \*\*m = &p;
7. printf("%d%d%d**\n**", k, \*p, \*\*m);
8. }

a) 5 5 5  
b) 5 5 junk value  
c) 5 junk junk  
d) Compile time error  
View Answer

Answer:a

5. What is the output of this C code?

1. #include <stdio.h>
2. void main()
3. {
4. int k = 5;
5. int \*p = &k;
6. int \*\*m = &p;
7. printf("%d%d%d**\n**", k, \*p, \*\*p);
8. }

a) 5 5 5  
b) 5 5 junk value  
c) 5 junk junk  
d) Compile time error  
View Answer

Answer:d

6. What is the output of this C code?

1. #include <stdio.h>
2. void main()
3. {
4. int k = 5;
5. int \*p = &k;
6. int \*\*m = &p;
7. \*\*m = 6;
8. printf("%d**\n**", k);
9. }

a) 5  
b) Run time error  
c) 6  
d) Junk  
View Answer

Answer:c

7. What is the output of this C code?

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

a) 1  
b) Compile time error  
c) Address of a  
d) Junk value  
View Answer

Answer:b

## [Multidimensional Arrays – 1](http://www.sanfoundry.com/multiple-choice-questions-c-multidimensional-arrays/)

1. What is the output of this C code?

1. #include <stdio.h>
2. void main()
3. {
4. int a[2][3] = {1, 2, 3, 4, 5};
5. int i = 0, j = 0;
6. for (i = 0; i < 2; i++)
7. for (j = 0; j < 3; j++)
8. printf("%d", a[i][j]);
9. }

a) 1 2 3 4 5 0  
b) 1 2 3 4 5 junk  
c) 1 2 3 4 5 5  
d) Run time error  
View Answer

Answer:a

2. What is the output of this C code?

1. #include <stdio.h>
2. void main()
3. {
4. int a[2][3] = {1, 2, 3, , 4, 5};
5. int i = 0, j = 0;
6. for (i = 0; i < 2; i++)
7. for (j = 0; j < 3; j++)
8. printf("%d", a[i][j]);
9. }

a) 1 2 3 junk 4 5  
b) Compile time error  
c) 1 2 3 0 4 5  
d) 1 2 3 3 4 5  
View Answer

Answer:b

3. What is the output of this C code?

1. #include <stdio.h>
2. void f(int a[][3])
3. {
4. a[0][1] = 3;
5. int i = 0, j = 0;
6. for (i = 0; i < 2; i++)
7. for (j = 0; j < 3; j++)
8. printf("%d", a[i][j]);
9. }
10. void main()
11. {
12. int a[2][3] = {0};
13. f(a);
14. }

a) 0 3 0 0 0 0  
b) Junk 3 junk junk junk junk  
c) Compile time error  
d) All junk values  
View Answer

Answer:a

4. What is the output of this C code?

1. #include <stdio.h>
2. void f(int a[][])
3. {
4. a[0][1] = 3;
5. int i = 0, j = 0;
6. for (i = 0;i < 2; i++)
7. for (j = 0;j < 3; j++)
8. printf("%d", a[i][j]);
9. }
10. void main()
11. {
12. int a[2][3] = {0};
13. f(a);
14. }

a) 0 3 0 0 0 0  
b) Junk 3 junk junk junk junk  
c) Compile time error  
d) All junk values  
View Answer

Answer:c

5. What is the output of this C code?

1. #include <stdio.h>
2. void f(int a[2][])
3. {
4. a[0][1] = 3;
5. int i = 0, j = 0;
6. for (i = 0;i < 2; i++)
7. for (j = 0;j < 3; j++)
8. printf("%d", a[i][j]);
9. }
10. void main()
11. {
12. int a[2][3] = {0};
13. f(a);
14. }

a) 0 3 0 0 0 0  
b) Junk 3 junk junk junk junk  
c) Compile time error  
d) All junk values  
View Answer

Answer:c

6. Comment on the following statement:  
    int (\*a)[7];  
a) An array “a” of pointers.  
b) A pointer “a” to an array.  
c) A ragged array.  
d) None of the mentioned  
View Answer

Answer:b

7. Comment on the 2 arrays regarding P and Q:  
    int \*a1[8];  
    int \*(a3[8]);  
    P. Array of pointers  
    Q. Pointer to an array  
a) a1 is P, a2 is Q  
b) a1 is P, a2 is P  
c) a1 is Q, a2 is P  
d) a1 is Q, a2 is Q  
View Answer

Answer:b

8. Which of the following is not possible statically in C?  
a) Jagged Array  
b) Rectangular Array  
c) Cuboidal Array  
d) Multidimensional Array  
View Answer

Answer:a

## [Initialization of Pointer Arrays – 1](http://www.sanfoundry.com/c-quiz-questions-initialization-pointer-arrays/)

1. To declare a 3 dimension array using pointers, which of the following is the correct syntax:  
a) char \*a[][];  
b) char \*\*a[];  
c) char \*\*\*a;  
d) All of the mentioned  
View Answer

Answer:a

2. Comment on the output of this C code?

1. #include <stdio.h>
2. int main()
3. {
4. char \*a = {"p", "r", "o", "g", "r", "a", "m"};
5. printf("%s", a);
6. }

a) Output will be program  
b) Output will be p  
c) No output  
d) Compile-time error  
View Answer

Answer:b

3. An array of strings can be initialized by:  
a) char \*a[] = {“Hello”, “World”};  
b) char \*a[] = {“Hello”, “Worlds”};  
c) char \*b = “Hello”;  
    char \*c = “World”;  
    char \*a[] = {b, c};  
d) All of the mentioned.  
View Answer

Answer:d

4. What is the output of this C code?

1. #include <stdio.h>
2. void main()
3. {
4. char \*a[10] = {"hi", "hello", "how"};
5. int i = 0;
6. for (i = 0;i < 10; i++)
7. printf("%s", \*(a[i]));
8. }

a) Segmentation fault  
b) hi hello how followed by 7 null values  
c) 10 null values  
d) depends on compiler  
View Answer

Answer:a

5. What is the output of this C code?

1. #include <stdio.h>
2. void main()
3. {
4. char \*a[10] = {"hi", "hello", "how"};
5. int i = 0, j = 0;
6. a[0] = "hey";
7. for (i = 0;i < 10; i++)
8. printf("%s**\n**", a[i]);
9. }

a) hi hello how Segmentation fault  
b) hi hello how followed by 7 null values  
c) hey hello how Segmentation fault  
d) Depends on compiler  
View Answer

Answer:c

6. What is the output of this C code?

1. #include <stdio.h>
2. void main()
3. {
4. char \*a[10] = {"hi", "hello", "how"};
5. printf("%d**\n**", sizeof(a));
6. }

a) 10  
b) 13  
c) Run time error  
d) 40  
View Answer

Answer:d

7. What is the output of this C code?

1. #include <stdio.h>
2. void main()
3. {
4. char \*a[10] = {"hi", "hello", "how"};
5. printf("%d**\n**", sizeof(a[1]));
6. }

a) 6  
b) 4  
c) 5  
d) 3  
View Answer

Answer:b

8. What is the output of this C code?

1. #include <stdio.h>
2. void main()
3. {
4. char \*a[10] = {"hi", "hello", "how"};
5. int i = 0;
6. for (i = 0;i < 10; i++)
7. printf("%s", a[i]);
8. }

a) hi hello how Segmentation fault  
b) hi hello how null  
c) hey hello how Segmentation fault  
d) hi hello how followed by 7 nulls  
View Answer

Answer:d

## [Pointers Vs. Multi-dimensional Arrays – 1](http://www.sanfoundry.com/online-c-test-pointers-vs-multi-dimensional-arrays/)

1. int a[10][20]; which is true for a  
a) a is true two-dimensional array  
b) 200 int-sized locations have been set aside  
c) The conventional rectangular subscript calculation 20 \* row + col is used to find the element a[row, col]  
d) All of the mentioned  
View Answer

Answer:d

2. int \*b[10]; which is true for b  
a) The definition only allocates 10 pointers and does not initialize them  
b) Initialization must be done explicitly  
c) Both a and b  
d) Error  
View Answer

Answer:c

3. What is the output of this C code?

1. #include <stdio.h>
2. void main()
3. {
4. char a[10][5] = {"hi", "hello", "fellows"};
5. printf("%s", a[2]);
6. }

a) fellows  
b) fellow  
c) fello  
d) fell  
View Answer

Answer:c

4. What is the output of this C code?

1. #include <stdio.h>
2. void main()
3. {
4. char a[10][5] = {"hi", "hello", "fellows"};
5. printf("%p**\n**", a);
6. printf("%p", a[0]);
7. }

a) Same address is printed  
b) Different address is printed  
c) hello  
d) hi hello fello  
View Answer

Answer:a

5. What is the output of this C code?

1. #include <stdio.h>
2. void main()
3. {
4. char a[10][5] = {"hi", "hello", "fellows"};
5. printf("%d", sizeof(a[1]));
6. }

a) 2  
b) 4  
c) 5  
d) 10  
View Answer

Answer:c

6. What is the output of the code given below?

1. #include <stdio.h>
2. int main()
3. {
4. char a[1][5] = {"hello"};
5. printf("%s", a[0]);
6. return 0;
7. }

a) Compile time error  
b) hello  
c) Undefined behaviour  
d) hellon  
View Answer

Answer:c

7. What is the output of the code given below?

1. #include <stdio.h>
2. int main()
3. {
4. char \*a[1] = {"hello"};
5. printf("%s", a[0]);
6. return 0;
7. }

a) Compile time error  
b) hello  
c) Undefined behaviour  
d) hellon  
View Answer

Answer:b

8. Which of the following statements are true?  
    P. Pointer to Array  
    Q. Multi-dimensional array  
a) P are static, Q are static  
b) P are static, Q are dynamic  
c) P are dynamic, Q are static  
d) P are dynamic, Q are dynamic  
View Answer

Answer:c

## [Command Line Arguments – 1](http://www.sanfoundry.com/interview-questions-c-command-line-arguments/)

1. What does argv and argc indicate in command-line arguments?  
    (Assuming: int main(int argc, char \*argv[]) )  
a) argument count, argument variable  
b) argument count, argument vector  
c) argument control, argument variable  
d) argument control, argument vector  
View Answer

Answer:b

2. Which of the following syntax is correct for command-line arguments?  
a) int main(int var, char \*varg[])  
b) int main(char \*argv[], int argc)  
c) int main()  
    {  
        int argv, char \*argc[];  
    }  
d) Both (a) and (b)  
View Answer

Answer:a

3. In linux, argv[0] by command-line argument can be occupied by  
a) ./a.out  
b) ./test  
c) ./fun.out.out  
d) All of the mentioned  
View Answer

Answer:d

4. What type of array is generally generated in Command-line argument?  
a) Single dimension array  
b) 2-Dimensional Square Array  
c) Jagged Array  
d) 2-Dimensional Rectangular Array  
View Answer

Answer:c

5. What would be the output if we try to execute following segment of code (assuming the     following input “cool brother in city”)?  
    printf(“%s\n”, argv[argc]);  
a) (null)  
b) City  
c) In  
D. Segmentation Fault  
View Answer

Answer:a

6. The first argument in command line arguments is  
a) The number of command-line arguments the program was invoked with;  
b) A pointer to an array of character strings that contain the arguments  
c) Nothing  
d) Both a & b  
View Answer

Answer:a

7. The second (argument vector) in command line arguments is  
a) The number of command-line arguments the program was invoked with;  
b) A pointer to an array of character strings that contain the arguments,one per string.  
c) Nothing  
d) Both a & b  
View Answer

Answer:b

8. argv[0] in command line arguments, is  
a) The name by which the program was invoked  
b) The name of the files which are passed to the program  
c) Count of the arguments in argv[] vector  
d) Both a & b  
View Answer

Answer:a

## [Pointers to Functions – 1](http://www.sanfoundry.com/c-quiz-pointers-to-functions/)

1. Which function is not called in the following program?

1. #include <stdio.h>
2. void first()
3. {
4. printf("first");
5. }
6. void second()
7. {
8. first();
9. }
10. void third()
11. {
12. second();
13. }
14. void main()
15. {
16. void (\*ptr)();
17. ptr = third;
18. ptr();
19. }

a) Function first  
b) Function second  
c) Function third  
d) None of the mentioned  
View Answer

Answer:d

2. How to call a function without using the function name to send parameters?  
a) typedefs  
b) Function pointer  
c) Both (a) and (b)  
d) None of the mentioned  
View Answer

Answer:b

3. Correct syntax to pass a Function Pointer as an argument  
a) void pass(int (\*fptr)(int, float, char)){}  
b) void pass(\*fptr(int, float, char)){}  
c) void pass(int (\*fptr)){}  
d) void pass(\*fptr){}  
View Answer

Answer:a

4. Which of the following is not possible in C?  
a) Array of function pointer  
b) Returning a function pointer  
c) Comparison of function pointer  
d) None of the mentioned  
View Answer

Answer:d

5. What is the output of this C code?

1. #include <stdio.h>
2. void first()
3. {
4. printf("Hello World");
5. }
6. void main()
7. {
8. void \*ptr() = first;
9. ptr++
10. ptr();
11. }

a) Illegal application of ++ to void data type  
b) pointer function initialized like a variable  
c) Both (a) and (b)  
d) None of the mentioned  
View Answer

Answer:c

6. What is the output of this C code?

1. #include <stdio.h>
2. int mul(int a, int b, int c)
3. {
4. return a \* b \* c;
5. }
6. void main()
7. {
8. int (\*function\_pointer)(int, int, int);
9. function\_pointer = mul;
10. printf("The product of three numbers is:%d",
11. function\_pointer(2, 3, 4));
12. }

a) The product of three numbers is:24  
b) Run time error  
c) Nothing  
d) Varies  
View Answer

Answer:a

7. What is the output of this C code?

1. #include <stdio.h>
2. int mul(int a, int b, int c)
3. {
4. return a \* b \* c;
5. }
6. void main()
7. {
8. int (function\_pointer)(int, int, int);
9. function\_pointer = mul;
10. printf("The product of three numbers is:%d",
11. function\_pointer(2, 3, 4));
12. }

a) The product of three numbers is:24  
b) Compile time error  
c) Nothing  
d) Varies  
View Answer

Answer:b

8. What is the output of this C code?

1. #include <stdio.h>
2. void f(int (\*x)(int));
3. int myfoo(int);
4. int (\*fooptr)(int);
5. int ((\*foo(int)))(int);
6. int main()
7. {
8. fooptr = foo(0);
9. fooptr(10);
10. }
11. int ((\*foo(int i)))(int)
12. {
13. return myfoo;
14. }
15. int myfoo(int i)
16. {
17. printf("%d**\n**", i + 1);
18. }

a) 10  
b) 11  
c) Compile time error  
d) Undefined behaviour  
View Answer

Answer:b

## [Complicated Declarations – 1](http://www.sanfoundry.com/c-question-bank-complicated-declarations/)

1. What is the output of this C code?

1. #include <stdio.h>
2. void main()
3. {
4. struct student
5. {
6. int no;
7. char name[20];
8. };
9. struct student s;
10. no = 8;
11. printf("%d", no);
12. }

a) Nothing  
b) Compile time error  
c) Junk  
d) 8  
View Answer

Answer:b

2. What is the output of this C code?

1. #include <stdio.h>
2. struct student
3. {
4. int no;
5. char name[20];
6. };
7. void main()
8. {
9. struct student s;
10. s.no = 8;
11. printf("hello");
12. }

a) Run time error  
b) Nothing  
c) hello  
d) Varies  
View Answer

Answer:c

3. What is the output of this C code?

1. #include <stdio.h>
2. struct student
3. {
4. int no = 5;
5. char name[20];
6. };
7. void main()
8. {
9. struct student s;
10. s.no = 8;
11. printf("hello");
12. }

a) Nothing  
b) Compile time error  
c) hello  
d) Varies  
View Answer

Answer:b

4. What is the output of this C code?

1. #include <stdio.h>
2. struct student
3. {
4. int no;
5. char name[20];
6. };
7. void main()
8. {
9. student s;
10. s.name = "hello";
11. printf("hello");
12. }

a) Nothing  
b) hello  
c) Compile time error  
d) Varies  
View Answer

Answer:c

5. What is the output of this C code?

1. #include <stdio.h>
2. void main()
3. {
4. struct student
5. {
6. int no;
7. char name[20];
8. };
9. struct student s;
10. s.no = 8;
11. printf("%s", s.name);
12. }

a) Nothing  
b) Compile time error  
c) Junk  
d) 8  
View Answer

Answer:c

6. What is the output of this C code?

1. #include <stdio.h>
2. struct student
3. {
4. int no;
5. char name[20];
6. };
7. struct student s;
8. void main()
9. {
10. s.no = 8;
11. printf("%s", s.name);
12. }

a) Nothing  
b) Compile time error  
c) Junk  
d) 8  
View Answer

Answer:a

7. What is the output of this C code?

1. #include <stdio.h>
2. int main()
3. {
4. int \*((\*x)())[2];
5. x();
6. printf("after x**\n**");
7. }
8. int \*((\*x)())[2]
9. {
10. int \*\*str;
11. str = (int\*)malloc(sizeof(int)\* 2);
12. return str;
13. }

a) Compile time error  
b) Undefined behaviour  
c) After x  
d) None of the mentioned  
View Answer

Answer:a

8. What is the output of this C code?

1. #include <stdio.h>
2. void (\*(f)())(int, float);
3. void (\*(\*x)())(int, float) = f;
4. void ((\*y)(int, float));
5. void foo(int i, float f);
6. int main()
7. {
8. y = x();
9. y(1, 2);
10. }
11. void (\*(f)())(int, float)
12. {
13. return foo;
14. }
15. void foo(int i, float f)
16. {
17. printf("%d %f**\n**", i, f);
18. }

a) 1 2.000000  
b) 1 2  
c) Compile time error  
d) Segmentation fault/code crash  
View Answer

Answer:a

9. What does this declaration say?  
    int (\*(\*y)())[2];  
a) y is pointer to the function which returns pointer to integer array  
b) y is pointer to the function which returns array of pointers  
c) y is function which returns function pointer which in turn returns pointer to integer array  
d) y is function which returns array of integers  
View Answer

Answer:a

10. What is the output of this C code?

1. #include <stdio.h>
2. void (\*(f)())(int, float);
3. typedef void (\*(\*x)())(int, float);
4. void foo(int i, float f);
5. int main()
6. {
7. x = f;
8. x();
9. }
10. void (\*(f)())(int, float)
11. {
12. return foo;
13. }
14. void foo(int i, float f)
15. {
16. printf("%d %f**\n**", i, f);
17. }

a) Compile time error  
b) Undefined behaviour  
c) 1 2.000000  
d) Nothing  
View Answer

Answer:a

11. What is the output of this C code?

1. #include <stdio.h>
2. void (\*(f)())(int, float);
3. typedef void (\*(\*x)())(int, float);
4. void foo(int i, float f);
5. int main()
6. {
7. x p = f;
8. p();
9. }
10. void (\*(f)())(int, float)
11. {
12. return foo;
13. }
14. void foo(int i, float f)
15. {
16. printf("%d %f**\n**", i, f);
17. }

a) Compile time error  
b) Undefined behaviour  
c) 1 2.000000  
d) Nothing  
View Answer

Answer:d

# 5. Structures, Unions and Bit-Fields

## [Basics of Structures – 1](http://www.sanfoundry.com/c-quiz-online-basics-structures/)

1. Which of the following are themselves a collection of different data types?  
a) string  
b) structures  
c) char  
d) All of the mentioned  
View Answer

Answer:b

2. User-defined data type can be derived by\_\_\_\_\_\_\_\_\_\_\_.  
a) struct  
b) enum  
c) typedef  
d) All of the mentioned  
View Answer

Answer:d

3. Which operator connects the structure name to its member name?  
a) -  
b) <-  
c) .  
d) Both (b) and (c)  
View Answer

Answer:c

4. Which of the following cannot be a structure member?  
a) Another structure  
b) Function  
c) Array  
d) None of the mentioned  
View Answer

Answer:b

5. Which of the following structure declaration will throw an error?  
a) struct temp{}s;  
    main(){}  
b) struct temp{};  
    struct temp s;  
    main(){}  
c) struct temp s;  
    struct temp{};  
    main(){}  
d) None of the mentioned  
View Answer

Answer:d

6. What is the output of this C code?

1. #include <stdio.h>
2. struct student
3. {
4. int no;
5. char name[20];
6. }
7. void main()
8. {
9. struct student s;
10. s.no = 8;
11. printf("hello");
12. }

a) Compile time error  
b) Nothing  
c) hello  
d) Varies  
View Answer

Answer:a

7. What is the output of this C code?

1. #include <stdio.h>
2. struct student
3. {
4. int no = 5;
5. char name[20];
6. };
7. void main()
8. {
9. struct student s;
10. s.no = 8;
11. printf("hello");
12. }

a) Nothing  
b) Compile time error  
c) hello  
d) Varies  
View Answer

Answer:b

8. What is the output of this C code?

1. #include <stdio.h>
2. struct student
3. {
4. int no;
5. char name[20];
6. };
7. void main()
8. {
9. student s;
10. s.no = 8;
11. printf("hello");
12. }

a) Nothing  
b) hello  
c) Compile time error  
d) Varies  
View Answer

Answer:c

9. What is the output of this C code?

1. #include <stdio.h>
2. void main()
3. {
4. struct student
5. {
6. int no;
7. char name[20];
8. };
9. struct student s;
10. s.no = 8;
11. printf("%d", s.no);
12. }

a) Nothing  
b) Compile time error  
c) Junk  
d) 8  
View Answer

Answer:d

10. Can the above code be compiled successfully?

1. #include <stdio.h>
2. struct p
3. {
4. int k;
5. char c;
6. float f;
7. };
8. int main()
9. {
10. struct p x = {.c = 97, .f = 3, .k = 1};
11. printf("%f**\n**", x.f);
12. }

a) Yes  
b) No  
c) Depends on the standard  
d) Depends on the platform  
View Answer

Answer:c

## [Structures and Functions – 1](http://www.sanfoundry.com/c-programming-questions-and-answers-structures-functions/)

1. What is the output of this C code?

1. #include <stdio.h>
2. struct student
3. {
4. char \*name;
5. };
6. struct student s;
7. struct student fun(void)
8. {
9. s.name = "newton";
10. printf("%s**\n**", s.name);
11. s.name = "alan";
12. return s;
13. }
14. void main()
15. {
16. struct student m = fun();
17. printf("%s**\n**", m.name);
18. m.name = "turing";
19. printf("%s**\n**", s.name);
20. }

a) newton alan alan  
b) alan newton alan  
c) alan alan newton  
d) Compile time error  
View Answer

Answer:a

2. What is the output of this C code?

1. #include <stdio.h>
2. struct student
3. {
4. char \*name;
5. };
6. void main()
7. {
8. struct student s, m;
9. s.name = "st";
10. m = s;
11. printf("%s%s", s.name, m.name);
12. }

a) Compile time error  
b) Nothing  
c) Junk values  
d) st st  
View Answer

Answer:d

3. Which of the following return-type cannot be used for a function in C?  
a) char \*  
b) struct  
c) void  
d) None of the mentioned  
View Answer

Answer:d

4. What’s the output of the following code?

1. #include <stdio.h>
2. struct temp
3. {
4. int a;
5. } s;
6. void func(struct temp)
7. {
8. s.a = 10;
9. printf("%d**\t**", s.a); s
10. }
11. main()
12. {
13. func(s);
14. printf("%d**\t**", s.a);
15. }

a) 10 (Garbage Value)  
b) 0 10  
c) 10 0  
d) (Garbage Value) 10  
View Answer

Answer:c

5. Which of the following is not possible under any scenario?  
a) s1 = &s2;  
b) s1 = s2;  
c) (\*s1).number = 10;  
d) None of the mentioned  
View Answer

Answer:d

6. Which of the following operation is illegal in structures?  
a) Typecasting of structure  
b) Pointer to a variable of same structure  
c) Dynamic allocation of memory for structure  
d) All of the mentioned  
View Answer

Answer:a

7. Presence of code like “s.t.b = 10″ indicate.  
a) Syntax Error  
b) structure  
c) double data type  
d) An ordinary variable name  
View Answer

Answer:b

8. The output of the code below is

1. #include <stdio.h>
2. struct student
3. {
4. char \*name;
5. };
6. struct student fun(void)
7. {
8. struct student s;
9. s.name = "alan";
10. return s;
11. }
12. void main()
13. {
14. struct student m = fun();
15. s.name = "turing";
16. printf("%s", m.name);
17. }

a) alan  
b) Turing  
c) Compile time error  
d) Nothing  
View Answer

Answer:c

## [Arrays of Structures – 1](http://www.sanfoundry.com/interview-questions-c-arrays-structures/)

1. The correct syntax to access the member of the ith structure in the array of structures is?  
    Assuming: struct temp  
    {  
        int b;  
    }s[50];  
a) s.b.[i];  
b) s.[i].b;  
c) s.b[i];  
d) s[i].b;  
View Answer

Answer:d

2. Comment on the output of this C code?

1. #include <stdio.h>
2. struct temp
3. {
4. int a;
5. int b;
6. int c;
7. };
8. main()
9. {
10. struct temp p[] = {{1, 2, 3}, {4, 5, 6}, {7, 8, 9}};
11. }

a) No Compile time error, generates an array of structure of size 3  
b) No Compile time error, generates an array of structure of size 9  
c) Compile time error, illegal declaration of a multidimensional array  
d) Compile time error, illegal assignment to members of structure  
View Answer

Answer:a

3. Which of the following uses structure?  
a) Array of structures  
b) Linked Lists  
c) Binary Tree  
d) All of the mentioned  
View Answer

Answer:d

4. What is the correct syntax to declare a function foo() which receives an array of structure in     function?  
a) void foo(struct \*var);  
b) void foo(struct \*var[]);  
c) void foo(struct var);  
d) None of the mentioned  
View Answer

Answer:a

5. What is the output of this C code?  
    (Assuming size of int be 4)

1. #include <stdio.h>
2. struct temp
3. {
4. int a;
5. int b;
6. int c;
7. } p[] = {0};
8. main()
9. {
10. printf("%d", sizeof(p));
11. }

a) 4  
b) 12  
c) 16  
d) Can’t be estimated due to ambigous initialization of array  
View Answer

Answer:b

6. What is the output of this C code?

1. #include <stdio.h>
2. struct student
3. {
4. char \*name;
5. };
6. struct student s[2];
7. void main()
8. {
9. s[0].name = "alan";
10. s[1] = s[0];
11. printf("%s%s", s[0].name, s[1].name);
12. s[1].name = "turing";
13. printf("%s%s", s[0].name, s[1].name);
14. }

a) alan alan alan turing  
b) alan alan turing turing  
c) alan turing alan turing  
d) Run time error  
View Answer

Answer:a

7. What is the output of this C code?

1. #include <stdio.h>
2. struct student
3. {
4. char \*name;
5. };
6. struct student s[2], r[2];
7. void main()
8. {
9. s[0].name = "alan";
10. s[1] = s[0];
11. r = s;
12. printf("%s%s", r[0].name, r[1].name);
13. }

a) alan alan  
b) Compile time error  
c) Varies  
d) Nothing  
View Answer

Answer:b

8. What is the output of this C code?

1. #include <stdio.h>
2. struct student
3. {
4. char \*name;
5. };
6. void main()
7. {
8. struct student s[2], r[2];
9. s[1] = s[0] = "alan";
10. printf("%s%s", s[0].name, s[1].name);
11. }

a) alan alan  
b) Nothing  
c) Compile time error  
d) Varies  
View Answer

Answer:c

9. What is the output of this C code?

1. #include <stdio.h>
2. struct student
3. {
4. };
5. void main()
6. {
7. struct student s[2];
8. printf("%d", sizeof(s));
9. }

a) 2  
b) 4  
c) 8  
d) 0  
View Answer

Answer:d

## [Pointer to Structures – 1](http://www.sanfoundry.com/c-quiz-pointer-structures/)

1. What is the output of this C code?

1. #include <stdio.h>
2. struct p
3. {
4. int x;
5. char y;
6. };
7. int main()
8. {
9. struct p p1[] = {1, 92, 3, 94, 5, 96};
10. struct p \*ptr1 = p1;
11. int x = (sizeof(p1) / 3);
12. if (x == sizeof(int) + sizeof(char))
13. printf("%d**\n**", ptr1->x);
14. else
15. printf("falsen");
16. }

a) Compile time error  
b) 1  
c) Undefined behaviour  
d) false  
View Answer

Answer:d

2. What is the output of this C code?

1. #include <stdio.h>
2. struct p
3. {
4. int x;
5. char y;
6. };
7. int main()
8. {
9. struct p p1[] = {1, 92, 3, 94, 5, 96};
10. struct p \*ptr1 = p1;
11. int x = (sizeof(p1) / sizeof(ptr1));
12. if (x == 1)
13. printf("%d**\n**", ptr1->x);
14. else
15. printf("false**\n**");
16. }

a) Compile time error  
b) 1  
c) false  
d) Undefined behaviour  
View Answer

Answer:c

3. What is the output of this C code?

1. #include <stdio.h>
2. struct p
3. {
4. int x;
5. char y;
6. };
7. typedef struct p\* q\*;
8. int main()
9. {
10. struct p p1[] = {1, 92, 3, 94, 5, 96};
11. q ptr1 = p1;
12. printf("%d**\n**", ptr1->x);
13. }

a) Compile time error  
b) 1  
c) Undefined behaviour  
d) Segmentation fault  
View Answer

Answer:a

4. What is the output of this C code?

1. #include <stdio.h>
2. struct p
3. {
4. int x;
5. char y;
6. };
7. void foo(struct p\* );
8. int main()
9. {
10. typedef struct p\* q;
11. struct p p1[] = {1, 92, 3, 94, 5, 96};
12. foo(p1);
13. }
14. void foo(struct p\* p1)
15. {
16. q ptr1 = p1;
17. printf("%d**\n**", ptr1->x);
18. }

a) Compile time error  
b) 1  
c) Segmentation fault  
d) Undefined behaviour  
View Answer

Answer:a

5. Which of the following are incorrect syntax for pointer to structure?  
    (Assuming struct temp{int b;}\*my\_struct;)  
a) \*my\_struct.b = 10;  
b) (\*my\_struct).b = 10;  
c) my\_struct->b = 10;  
d) Both (a) and (b)  
View Answer

Answer:a

6. Which of the following is an incorrect syntax to pass by reference a member of a structure in      a function?  
    (Assume: struct temp{int a;}s;)  
a) func(&s.a);  
b) func(&(s).a);  
c) func(&(s.a));  
d) None of the mentioned  
View Answer

Answer:d

7. Which of the following structure declaration doesn’t require pass-by-reference?  
a) struct{int a;}s;  
    main(){}  
b) struct temp{int a;};  
    main(){  
        struct temp s;  
    }  
c) struct temp{int a;};  
    main(){}  
    struct temp s;  
d) None of the mentioned  
View Answer

Answer:d

8. For the following function call which option is not possible?  
    func(&s.a); //where s is a variable of type struct and a is the member of the struct.  
a) Compiler can access entire structure from the function.  
b) Individual member’s address can be displayed in structure.  
c) Individual member can be passed by reference in a function.  
d) Both (b) and (c).  
View Answer

Answer:a

9. Comment on the output of this C code?

1. #include <stdio.h>
2. struct temp
3. {
4. int a;
5. } s;
6. void change(struct temp);
7. main()
8. {
9. s.a = 10;
10. change(s);
11. printf("%d**\n**", s.a);
12. }
13. void change(struct temp s)
14. {
15. s.a = 1;
16. }

a) Output will be 1  
b) Output will be 10  
c) Output varies with machine  
d) Compile time error  
View Answer

Answer:b

10. What is the output of this C code?

1. #include <stdio.h>
2. struct p
3. {
4. int x;
5. int y;
6. };
7. int main()
8. {
9. struct p p1[] = {1, 92, 3, 94, 5, 96};
10. struct p \*ptr1 = p1;
11. int x = (sizeof(p1) / 5);
12. if (x == 3)
13. printf("%d %d**\n**", ptr1->x, (ptr1 + x - 1)->x);
14. else
15. printf("false**\n**");
16. }

a) Compile time error  
b) 1 5  
c) Undefined behaviour  
d) false  
View Answer

Answer:d

## [Self-Referential Structures – 1](http://www.sanfoundry.com/c-programming-questions-answers-self-referential-structures-1/)

1. What is the output of this C code?

1. #include <stdio.h>
2. struct student
3. {
4. char \*c;
5. struct student \*point;
6. };
7. void main()
8. {
9. struct student s;
10. struct student m;
11. s.c = m.c = "hi";
12. m.point = &s;
13. (m.point)->c = "hey";
14. printf("%s**\t**%s**\t**", s.c, m.c);
15. }

a) hey hi  
b) hi hey  
c) Run time error  
d) hey hey  
View Answer

Answer:a

2. What is the output of this C code?

1. #include <stdio.h>
2. struct student
3. {
4. char \*c;
5. struct student \*point;
6. };
7. void main()
8. {
9. struct student s;
10. struct student m;
11. m.point = s;
12. (m.point)->c = "hey";
13. printf("%s", s.c);
14. }

a) Nothing  
b) Compile time error  
c) hey  
d) Varies  
View Answer

Answer:b

3. What is the output of this C code?

1. #include <stdio.h>
2. struct student
3. {
4. char \*c;
5. struct student point;
6. };
7. void main()
8. {
9. struct student s;
10. s.c = "hello";
11. printf("%s", s.c);
12. }

a) hello  
b) Nothing  
c) Varies  
d) Compile time error  
View Answer

Answer:d

4. What is the output of this C code?

1. #include <stdio.h>
2. struct student
3. {
4. char \*c;
5. struct student \*point;
6. };
7. void main()
8. {
9. struct student s;
10. printf("%d", sizeof(s));
11. }

a) 5  
b) 9  
c) 8  
d) 16  
View Answer

Answer:c

5. What is the output of this C code?

1. #include <stdio.h>
2. struct student
3. {
4. char \*c;
5. struct student \*point;
6. };
7. void main()
8. {
9. struct student s;
10. struct student \*m = &s;
11. printf("%d", sizeof(student));
12. }

a) Compile time error  
b) 8  
c) 5  
d) 16  
View Answer

Answer:a

6. What is the output of this C code?

1. #include <stdio.h>
2. struct p
3. {
4. int x;
5. char y;
6. struct p \*ptr;
7. };
8. int main()
9. {
10. struct p p = {1, 2, &p};
11. printf("%d**\n**", p.ptr->x);
12. return 0;
13. }

a) Compile time error  
b) Undefined behaviour  
c) 1  
d) 2  
View Answer

Answer:c

7. What is the output of this C code?

1. #include <stdio.h>
2. typedef struct p \*q;
3. struct p
4. {
5. int x;
6. char y;
7. q ptr;
8. };
9. typedef struct p \*q;
10. int main()
11. {
12. struct p p = {1, 2, &p};
13. printf("%d**\n**", p.ptr->x);
14. return 0;
15. }

a) Compile time error  
b) 1  
c) Undefined behaviour  
d) Address of p  
View Answer

Answer:a

8. Presence of loop in a linked list can be tested by the compiler by.  
a) Traveling the list, if NULL is encountered no loop exists  
b) Comparing the address of nodes by address of every other node  
c) Comparing the the value stored in a node by a value in every other node  
d) Both (a) and (b).  
View Answer

Answer:b

## [Table Lookup – 1](http://www.sanfoundry.com/c-quiz-online-table-lookup/)

1. What is the output of this C code?

1. #include <stdio.h>
2. struct student
3. {
4. char a[5];
5. };
6. void main()
7. {
8. struct student s[] = {"hi", "hey"};
9. printf("%c", s[0].a[1]);
10. }

a) h  
b) i  
c) e  
d) y  
View Answer

Answer:b

2. What is the output of this C code?

1. #include <stdio.h>
2. void main()
3. {
4. char \*a[3] = {"hello", "this"};
5. printf("%s", a[1]);
6. }

a) hello  
b) Varies  
c) this  
d) Compile time error  
View Answer

Answer:c

3. What is the output of this C code?

1. #include <stdio.h>
2. void main()
3. {
4. int lookup[100] = {0, 1, 2, 3, 4, 5, 6, 7, 8, 9};
5. printf("%d", lookup[3]);
6. }

a) 2  
b) 4  
c) Compile time error  
d) 3  
View Answer

Answer:d

4. What is the output of this C code?

1. #include <stdio.h>
2. void main()
3. {
4. char \*a[3][3] = {{"hey", "hi", "hello"}, {"his", "her", "hell"}
5. , {"hellos", "hi's", "hmm"}};
6. printf("%s", a[1][1]);
7. }

a) her  
b) hi  
c) Compile time error  
d) hi’s  
View Answer

Answer:a

5. What is the output of this C code?

1. #include <stdio.h>
2. struct p
3. {
4. char \*name;
5. struct p \*next;
6. };
7. struct p \*ptrary[10];
8. int main()
9. {
10. struct p p;
11. p->name = "xyz";
12. p->next = NULL;
13. ptrary[0] = &p;
14. printf("%s**\n**", p->name);
15. return 0;
16. }

a) Compile time error  
b) Segmentation fault/code crash  
c) xyz  
d) Undefined behaviour  
View Answer

Answer:a

6. What is the output of this C code?

1. #include <stdio.h>
2. struct p
3. {
4. char \*name;
5. struct p \*next;
6. };
7. struct p \*ptrary[10];
8. int main()
9. {
10. struct p p;
11. p.name = "xyz";
12. p.next = NULL;
13. ptrary[0] = &p;
14. printf("%s**\n**", ptrary[0]->name);
15. return 0;
16. }

a) Compile time error  
b) Segmentation fault  
c) Undefined behaviour  
d) xyz  
View Answer

Answer:d

7. What is the output of this C code?

1. #include <stdio.h>
2. struct p
3. {
4. char \*name;
5. struct p \*next;
6. };
7. struct p \*ptrary[10];
8. int main()
9. {
10. struct p p, q;
11. p.name = "xyz";
12. p.next = NULL;
13. ptrary[0] = &p;
14. strcpy(q.name, p.name);
15. ptrary[1] = &q;
16. printf("%s**\n**", ptrary[1]->name);
17. return 0;
18. }

a) Compile time error  
b) Segmentation fault/code crash  
c) Depends on the compiler  
d) xyz  
View Answer

Answer:b

8. What is the output of this C code?

1. #include <stdio.h>
2. int main()
3. {
4. struct p
5. {
6. char \*name;
7. struct p \*next;
8. };
9. struct p p, q;
10. p.name = "xyz";
11. p.next = NULL;
12. ptrary[0] = &p;
13. strcpy(q.name, p.name);
14. ptrary[1] = &q;
15. printf("%s**\n**", ptrary[1]->name);
16. return 0;
17. }

a) Compile time error  
b) Depends on the compiler.  
c) Undefined behaviour  
d) xyz  
View Answer

Answer:c

## [Typedefs – 1](http://www.sanfoundry.com/c-programming-questions-answers-typedefs/)

1. What is the output of this C code?

1. #include <stdio.h>
2. typedef struct student
3. {
4. char \*a;
5. }stu;
6. void main()
7. {
8. struct stu s;
9. s.a = "hi";
10. printf("%s", s.a);
11. }

a) Compile time error  
b) Varies  
c) hi  
d) h  
View Answer

Answer:a

2. What is the output of this C code?

1. #include <stdio.h>
2. typedef struct student
3. {
4. char \*a;
5. }stu;
6. void main()
7. {
8. struct student s;
9. s.a = "hey";
10. printf("%s", s.a);
11. }

a) Compile time error  
b) Varies  
c) he  
d) hey  
View Answer

Answer:d

3. What is the output of this C code?

1. #include <stdio.h>
2. typedef int integer;
3. int main()
4. {
5. int i = 10, \*ptr;
6. float f = 20;
7. integer j = i;
8. ptr = &j;
9. printf("%d**\n**", \*ptr);
10. return 0;
11. }

a) Compile time error  
b) Undefined behaviour  
c) Depends on the standard  
d) 10  
View Answer

Answer:d

4. What is the output of this C code?

1. #include <stdio.h>
2. int (\*(x()))[2];
3. typedef int (\*(\*ptr)())[2] ptrfoo;
4. int main()
5. {
6. ptrfoo ptr1;
7. ptr1 = x;
8. ptr1();
9. return 0;
10. }
11. int (\*(x()))[2]
12. {
13. int (\*ary)[2] = malloc(sizeof\*ary);
14. return &ary;
15. }

a) Compile time error  
b) Nothing  
c) Undefined behaviour  
d) Depends on the standard  
View Answer

Answer:a

5. What is the output of this C code?

1. #include <stdio.h>
2. int \*(\*(x()))[2];
3. typedef int \*\*(\*ptrfoo)())[2];
4. int main()
5. {
6. ptrfoo ptr1;
7. ptr1 = x;
8. ptr1();
9. return 0;
10. }
11. int \*(\*(x()))[2]
12. {
13. int (\*ary)[2] = malloc(sizeof \* ary);
14. return &ary;
15. }

a) Compile time error  
b) Nothing  
c) Undefined behaviour  
d) Depends on the standard  
View Answer

Answer:b

6. What is the output of this C code?

1. #include <stdio.h>
2. typedef struct p
3. {
4. int x, y;
5. };
6. int main()
7. {
8. p k1 = {1, 2};
9. printf("%d**\n**", k1.x);
10. }

a) Compile time error  
b) 1  
c) 0  
d) Depends on the standard  
View Answer

Answer:a

7. What is the output of this C code?

1. #include <stdio.h>
2. typedef struct p
3. {
4. int x, y;
5. }k = {1, 2};
6. int main()
7. {
8. p k1 = k;
9. printf("%d**\n**", k1.x);
10. }

a) Compile time error  
b) 1  
c) 0  
d) Depends on the standard  
View Answer

Answer:a

8. What is the output of this C code?

1. #include <stdio.h>
2. typedef struct p
3. {
4. int x, y;
5. }k;
6. int main()
7. {
8. struct p p = {1, 2};
9. k k1 = p;
10. printf("%d**\n**", k1.x);
11. }

a) Compile time error  
b) 1  
c) 0  
d) Depends on the standard  
View Answer

Answer:b

## [Unions – 1](http://www.sanfoundry.com/interview-questions-c-unions/)

1. Size of a union is determined by size of the.  
a) First member in the union  
b) Last member in the union  
c) Biggest member in the union  
d) Sum of the sizes of all members  
View Answer

Answer:c

2. Comment on the following union declaration?

1. #include <stdio.h>
2. union temp
3. {
4. int a;
5. float b;
6. char c;
7. };

    union temp s = {1,2.5,’A'}; //REF LINE  
    Which member of the union will be active after REF LINE?  
a) a  
b) b  
c) c  
d) Such declaration are illegal  
View Answer

Answer:a

3. What would be the size of the following union declaration?

1. #include <stdio.h>
2. union uTemp
3. {
4. double a;
5. int b[10];
6. char c;
7. }u;

    (Assuming size of double = 8, size of int = 4, size of char = 1)  
a) 4  
b) 8  
c) 40  
d) 80  
View Answer

Answer:c

4. What type of data is holded by variable u int this C code?

1. #include <stdio.h>
2. union u\_tag
3. {
4. int ival;
5. float fval;
6. char \*sval;
7. } u;

    The variable u here  
a) Will be large enough to hold the largest of the three types;  
b) Will be large enough to hold the smallest of the three types;  
c) Will be large enough to hold the all of the three types;  
d) None of the mentioned  
View Answer

Answer:a

5. Members of a union are accessed as\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.  
a) union-name.member  
b) union-pointer->member  
c) Both a & b  
d) None of the mentioned  
View Answer

Answer:c

6. What is the output of this C code?

1. #include <stdio.h>
2. struct
3. {
4. char \*name;
5. union
6. {
7. char \*sval;
8. } u;
9. } symtab[10];

    the first character of the string sval by either of  
a) \*symtab[i].u.sval  
b) symtab[i].u.sval[0]  
c) You cannot have union inside structure  
d) Both a & b  
View Answer

Answer:d

7. What is the output of this C code(size of int and float is 4)?

1. #include <stdio.h>
2. union
3. {
4. int ival;
5. float fval;
6. } u;
7. void main()
8. {
9. printf("%d", sizeof(u));
10. }

a) 16  
b) 8  
c) 4  
d) 32  
View Answer

Answer:c

8. What is the output of this C code?

1. #include <stdio.h>
2. union stu
3. {
4. int ival;
5. float fval;
6. };
7. void main()
8. {
9. union stu r;
10. r.ival = 5;
11. printf("%d", r.ival);
12. }

a) 9  
b) Compile time error  
c) 16  
d) 5  
View Answer

Answer:d

## [Bit-fields – 1](http://www.sanfoundry.com/c-programming-interview-questions-bit-fields/)

1. What is the correct syntax to initialize bit-fields in an structure?  
a) struct temp  
    {  
        unsigned int a : 1;  
    }s;  
b) struct temp  
    {  
        unsigned int a = 1;  
    }s;  
c) struct temp  
    {  
        unsigned float a : 1;  
    }s;  
d) Both a and c.  
View Answer

Answer:a

2. Which of the following data types are accepted while declaring bit-fields?  
a) char  
b) float  
c) double  
d) None of the mentioned  
View Answer

Answer:a

3. Which of the following reduces the size of a structure?  
a) union  
b) bit-fields  
c) malloc  
d) None of the mentioned  
View Answer

Answer:b

4. For what minimum value of x in a 32-bit Linux OS would make the size of s equal to 8 bytes?

1. struct temp
2. {
3. int a : 13;
4. int b : 8;
5. int c : x;
6. }s;

a) 4  
b) 8  
c) 12  
d) 32  
View Answer

Answer:c

5. Calculate the % of memory saved when bit-fields are used for the following structure.?  
    (Assuming size of int = 4, calculate the % using the memory that would be occupied without     bit-fields)

1. struct temp
2. {
3. int a : 1;
4. int b : 2;
5. int c : 4;
6. int d : 4;
7. }s;

a) 25%  
b) 33.3%  
c) 50%  
d) 75%  
View Answer

Answer:d

6. In the declaration of bit-fields,  
    struct-declarator:  
    declarator  
    type-specifier declarator opt : constant-expression  
    The constant-expression specifies  
a) The width of the field in bits.  
b) Nothing  
c) The width of the field in bytes.  
d) Error  
View Answer

Answer:a

7. In the declaration of bit-fields,  
    struct-declarator:  
    declarator  
    type-specifier declarator opt : constant-expression  
    The constant-expression must be  
a) Any type  
b) Nothing  
c) Integer value  
d) Nonnegative integer value  
View Answer

Answer:d

8. Which of the following is not allowed?  
a) Arrays of bit fields  
b) Pointers to bit fields  
c) Functions returning bit fields  
d) None of the mentioned  
View Answer

Answer:d

9. Bit fields can only be declared as part of a structure.  
a) false  
b) true  
c) Nothing  
d) Varies  
View Answer

Answer:b

10. The following declarations in order are  
    short a : 17;  
    int long y : 33;  
a) Legal, legal  
b) Legal, illegal  
c) Illegal, illegal  
d) Illegal, legal  
View Answer

Answer:c