1. Which of these bests describes an array?  
   a) A data structure that shows a hierarchical behavior  
   b) Container of objects of similar types  
   c) Arrays are immutable once initialized  
   d) Array is not a data structure
2. How do you initialize an array in C?  
   a) int arr[3] = (1,2,3);  
   b) int arr(3) = {1,2,3};  
   c) int arr[3] = {1,2,3};  
   d) int arr(3) = (1,2,3);

3. What is the output of the following piece of code?

**public** **class** array

{

**public** **static** **void** main(String args[])

{

**int** []arr = {1,2,3,4,5};

System.out.println(arr[2]);

System.out.println(arr[4]);

}

}

a) 3 and 5  
b) 5 and 3  
c) 2 and 4  
d) 4 and 2

4. What is the output of the following piece of code?

**public** **class** array

{

**public** **static** **void** main(String args[])

{

**int** []arr = {1,2,3,4,5};

System.out.println(arr[5]);

}

}

a) 4  
b) 5  
c) ArrayIndexOutOfBoundsException  
d) InavlidInputException

5. When does the ArrayIndexOutOfBoundsException occur?  
a) Compile-time  
b) Run-time  
c) Not an error  
d) Not an exception at all

6. Which of the following concepts make extensive use of arrays?  
a) Binary trees  
b) Scheduling of processes  
c) Caching  
d) Spatial locality

7. What are the advantages of arrays?  
a) Objects of mixed data types can be stored  
b) Elements in an array cannot be sorted  
c) Index of first element of an array is 1  
d) Easier to store elements of same data type

8. What are the disadvantages of arrays?  
a) Data structure like queue or stack cannot be implemented  
b) There are chances of wastage of memory space if elements inserted in an array are lesser than the allocated size  
c) Index value of an array can be negative  
d) Elements are sequentially accessed

9. Assuming int is of 4bytes, what is the size of int arr[15];?  
a) 15  
b) 19  
c) 11  
d) 60

10. In general, the index of the first element in an array is \_\_\_\_\_\_\_\_\_\_  
a) 0  
b) -1  
c) 2  
d) 1

11. Elements in an array are accessed \_\_\_\_\_\_\_\_\_\_\_\_\_  
a) randomly  
b) sequentially  
c) exponentially  
d) logarithmically

12. Which of the following correctly declares an array?  
a) int array[10];  
b) int array;  
c) array{10};  
d) array array[10];

13. What is the index number of the last element of an array with 9 elements?  
a) 9  
b) 8  
c) 0  
d) Programmer-defined

14. What is the correct definition of an array?  
a) An array is a series of elements of the same type in contiguous memory locations  
b) An array is a series of element  
c) An array is a series of elements of the same type placed in non-contiguous memory locations  
d) An array is an element of the different type

15. Which of the following accesses the seventh element stored in array?  
a) array[6];  
b) array[7];  
c) array(7);  
d) array;

16. Which of the following gives the memory address of the first element in array?  
a) array[0];  
b) array[1];  
c) array(2);  
d) array;

17. What will be the output of the following C++ code?

1. #include <stdio.h>
2. #include<iostream>
3. using namespace std;
4. int main ()
5. {
6. int array[] = {0, 2, 4, 6, 7, 5, 3};
7. int n, result = 0;
8. for (n = 0; n < 8; n++)
9. {
10. result += array[n];
11. }
12. cout << result;
13. return 0;
14. }

a) 25  
b) 26  
c) 27  
d) 21

18. What will be the output of the following C++ code?

1. #include <stdio.h>
2. #include<iostream>
3. using namespace std;
4. int main()
5. {
6. int a = 5, b = 10, c = 15;
7. int arr[3] = {&a, &b, &c};
8. cout << \*arr[\*arr[1] - 8];
9. return 0;
10. }

a) 15  
b) 18  
c) garbage value  
d) compile time error

19. What will be the output of the following C++ code?

1. #include <stdio.h>
2. #include <iostream>
3. using namespace std;
4. int main()
5. {
6. char str[5] = "ABC";
7. cout << str[3];
8. cout << str;
9. return 0;
10. }

a) ABC  
b) ABCD  
c) AB  
d) AC

20. What is the meaning of the following declaration?

int(\*p[5])();

a) p is pointer to function  
b) p is array of pointer to function  
c) p is pointer to such function which return type is the array  
d) p is pointer to array of function

21. What will be the output of the following C++ code?

1. #include <iostream>
2. using namespace std;
3. int main()
4. {
5. int arr[] = {4, 5, 6, 7};
6. int \*p = (arr + 1);
7. cout << \*p;
8. return 0;
9. }

a) 4  
b) 5  
c) 6  
d) 7

22. What will be the output of the following C++ code?

1. #include <iostream>
2. using namespace std;
3. int main()
4. {
5. int arr[] = {4, 5, 6, 7};
6. int \*p = (arr + 1);
7. cout << arr;
8. return 0;
9. }

a) 4  
b) 5  
c) address of arr  
d) 7

23. What will be the output of the following C++ code?

1. #include <iostream>
2. using namespace std;
3. int main()
4. {
5. int arr[] = {4, 5, 6, 7};
6. int \*p = (arr + 1);
7. cout << \*arr + 9;
8. return 0;
9. }

a) 12  
b) 5  
c) 13  
d) error

24. What will be the output of the following C++ code?

1. #include <iostream>
2. using namespace std;
3. int main()
4. {
5. int i;
6. const char \*arr[] = {"C", "C++", "Java", "VBA"};
7. const char \*(\*ptr)[4] = &arr;
8. cout << ++(\*ptr)[2];
9. return 0;
10. }

a) ava  
b) java  
c) c++  
d) compile time error