By OnlineInterviewQuestions.com

Data Structure MCQ

Take Data Structure MCQ Test to Test Your Knowledge

Data Structure is the most popular technique to store & manage data nowadays. It is a set of algorithms, that can be used with programming languages to structure the data in memory so that it can be accessed easily. mainly there are 2 types of Data Structure.

1. Primitive Data Sturcutre
2. Non Primitve Data Structure

Practice here the top **Data Structure MCQ Questions,** that check your basic knowledge of Data Structure. This **Data Structure MCQ Test** contains the best 25+ Multiple Choice Questions. These MCQs are very popular & asked many times at Data Structure Interviews/Exams. Apart from this, you can also download the **Data Structure MCQ Questions and Answers PDF** completely free.

Also, Read Best Data Structure Interview Questions.

Q1. Process of inserting an element in stack is called __

- **A. Push**
- **B.** Evaluation
- **C.** Pop
- **D.** Create

Q2. What is a bit array?

- **A. Data structure that compactly stores bits**
- **B.** An array in which most of the elements have the same value
- **C.** Data structure for representing arrays of records
- **D.** None of the mentioned

Q3. Data structure that compactly stores bits -

- **A.** Bloom filter
- **B.** For the allocation of memory pages
- **C.** Used by the Linux kernel

- **D. All of the mentioned**

Q4. Which class in Java can be used to represent bit array?

- **A.** BitArray
- **B.** BitStream
- **C. BitSet**
- **D.** BitVector

Q5. Which of the following bitwise operations will you use to set a particular bit to 1?

- **A.** AND
- **B.** XOR
- **C. OR**
- **D.** NOR

Q6. What is a dynamic array?

- **A. A variable size data structure**
- **B.** An array which is created at runtime
- **C.** The memory to the array is allocated at runtime
- **D.** An array which is reallocated everytime whenever new elements have to be added

Q7. The number of items used by the dynamic array contents is its -

- **A.** Capacity
- **B. Logical size**
- **C.** Random size
- **D.** Physical size

Q8. How will you implement dynamic arrays in Java?

- **A.** Set
- **B.** Map
- **C.** HashMap
- **D. List**

Q9. What is the time complexity for inserting/deleting at the beginning of the array?

- **A.** O(logn)
- **B.** O(nlogn)
- **C.** O(1)
- **D. O(n)**

Q10. What are some of the disadvantages of parallel arrays?

- **A.** Very little direct language support
- **B.** Expensive to shrink or grow
- **C.** Poor locality of reference for non-sequential access
- **D. All of the mentioned**

Q11. What is a sorted array?

- **A.** Arrays sorted in numerical order
- **B.** Arrays sorted in alphabetical order
- **C.** Elements of the array are placed at equally spaced addresses in the memory
- **D. All of the mentioned**

Q12. What are some of the applications of sorted arrays?

- **A.** Commercial computing
- **B.** Priority Scheduling
- **C.** Discrete Mathematics
- **D. All of the mentioned**

Q13. What is the difference between a normal(naive) array and a sparse array?

- **A. Sparse array is memory efficient**
- **B.** Sparse array can hold more elements than a normal array
- **C.** Sparse array is dynamic
- **D.** A naive array is more efficient

Q14. What is sparsity of a matrix?

- **A.** The fraction of non-zero elements over the total number of elements
- **B. The fraction of zero elements over the total number of elements**
- **C.** The fraction of total number of elements over the non-zero elements
- **D.** The fraction of total number of elements over the zero elements

Q15. Which of the following is false?

- **A.** Suffix array is used in string matching problems
- **B.** Suffix array is always sorted
- **C.** Suffix array contains all the suffixes of the given string
- **D. Suffix array is always unsorted**

Q16. Suffix array can be created in O(nlogn) time.

- **A. True**
- **B.** False

Q17. Which of the following is/are advantages suffix array one suffix tree? I. Lesser space requirement II. Improved cache locality III. Easy construction in linear time

- **A.** Only I
- **B.** Only I and III
- **C.** Only II and III
- **D. All I, II and III**

Q18. Which of the following property does not hold for matrix multiplication?

- **A. Commutative**
- **B.** Distributive
- **C.** Associative
- **D.** None of the mentioned

Q19. Matrix A when multiplied with Matrix C gives the Identity matrix I, what is C ?

- **A.** Identity matrix
- **B. Inverse of A**
- **C.** Transpose of A
- **D.** Square of A

Q20. Who coined the term Sparse Matrix?

- **A.** James Sylvester
- **B.** Chris Messina
- **C. Harry Markowitz**
- **D.** Arthur Cayley

Q21. Which of the following data structure is mainly used for implementing the recursive algorithm?

- **A. Stack**
- **B.** Queue
- **C.** Linked list
- **D.** Binary tree

Q22. The main advantage of the array data structure is ....

- **A.** Elements of an array cannot be sorted
- **B. Easier to access the elements in an array**
- **C.** Elements of mixed data types can be stored
- **D.** All of the above

Q23. Which of the following data structure is the best for implementing a priority queue?

- **A. Heap**
- **B.** Array
- **C.** Stack
- **D.** Linked list

Q24. What are the characteristics of a Data Structure?

- **A.** Correctness
- **B.** Time Complexity

- **C.** Space Complexity
- **D. All of the above**

Q25. Data Structure is a systematic way to organize data in order to use it efficiently.

- **A. True**
- **B.** False

Please Visit OnlineInterviewquestions.com to download more pdfs