

# QB365 Question Bank Software Study Materials

## Data Abstraction 50 Important 1 Marks Questions With Answers (Book Back and Creative)

12th Standard

Computer Science

Total Marks : 50

### Multiple Choice Question

50 x 1 = 50

- 1) Which of the following functions that build the abstract data type?  
**(a) Constructors** (b) Destructors (c) recursive (d) Nested
- 2) Which of the following functions that retrieve information from the data type?  
(a) Constructors **(b) Selectors** (c) recursive (d) Nested
- 3) The data structure which is a mutable ordered sequence of elements is called  
(a) Built in **(b) List** (c) Tuple (d) Derived data
- 4) A sequence of immutable objects is called  
(a) Built in (b) List **(c) Tuple** (d) Derived data
- 5) The data type whose representation is known are called  
(a) Built in datatype (b) Derived datatype **(c) Concrete datatype** (d) Abstract datatype
- 6) The data type whose representation is unknown are called  
(a) Built in datatype (b) Derived datatype (c) Concrete datatype **(d) Abstract datatype**
- 7) Which of the following is a compound structure?  
**(a) Pair** (b) Triplet (c) single (d) quadrat
- 8) Bundling two values together into one can be considered as  
**(a) Pair** (b) Triplet (c) single (d) quadrat
- 9) Which of the following allow to name the various parts of a multi-item object?  
(a) Tuples (b) Lists **(c) Classes** (d) quadrats
- 10) Which of the following is constructed by placing expressions within square brackets?  
(a) Tuples **(b) Lists** (c) Classes (d) quadrats
- 11) Which of the following is a powerful concept that allows programmers to treat codes as objects?  
(a) Encapsulation **(b) Data Abstraction** (c) Inheritance (d) Polymorphism
- 12) Which of the following provides modularity?  
(a) Datatypes (b) Subroutines (c) Classes **(d) Abstraction**
- 13) ADT expansion is  
(a) Abstract Data Template (b) Absolute Data Type **(c) Abstract Data Type** (d) Application Development Tool
- 14) Which of the following is a type for objects whose behavior is defined by a set of value and a set of operations?  
(a) User-defined datatype (b) Derived datatype (c) Built-in datatype **(d) Abstract datatype**

- 15) ADT behavior is defined by  
(i) Set of Variables  
(ii) Set of Value  
(iii) Set of Functions  
(iv) Set of Operations  
(a) i, ii (b) ii, iii **(c) ii, iv** (d) i, iii
- 16) How many ways to implement an ADT?  
(a) Only one (b) Two (c) Three **(d) Many**
- 17) Which of the following replicate how we think about the world?  
(a) Queue ADT (b) Data Hiding **(c) Data Abstraction** (d) Stack ADT
- 18) To facilitate data abstraction, How many types of functions are created?  
**(a) 2** (b) 3 (c) 4 (d) Only one
- 19) Which of the following function that facilitate the data abstraction?  
(a) Constructors (b) Destructors (c) Selectors **(d) a and c**
- 20) Which of the following are functions that build the abstract datatype?  
**(a) Constructors** (b) Destructors (c) Selectors (d) All of these
- 21) Which of the following extract the information of the object?  
(a) Constructors (b) Functions **(c) Selectors** (d) Destructors
- 22) In which data representation, a definition for each function is known  
(a) User defined (b) Built-in (c) Abstract **(d) Concrete**
- 23) How many parts are there in the program?  
**(a) 2** (b) 3 (c) 4 (d) Many
- 24) Color = ('red', 'green', 'blue') is an example of  
(a) Dictionary (b) List (c) Set **(d) Tuple**
- 25) Which of the following defines a data abstraction by grouping related data items?  
(a) List (b) Pair **(c) Class** (d) Tuple
- 26) CDT expansion is  
(a) Collective Data Type (b) Class Data Type **(c) Concrete Data Type** (d) Central Data Type
- 27) Data Abstraction allows programmers to treat code as\_\_\_\_\_  
**(a) Objects** (b) Classes (c) Members (d) Parameters
- 28) Classes are the representation for\_\_\_\_\_  
**(a) Abstract datatype** (b) Built-in datatype (c) Concrete datatype (d) Essential datatype
- 29) The\_\_\_\_\_ can be implemented using singly linked list or doubly linked list  
(a) Tuple ADT **(b) List ADT** (c) Function ADT (d) List ADT
- 30) The basic idea of \_\_\_\_\_ is to structure programs so that they operate on abstract data  
(a) Encapsulation (b) Polymorphism (c) Data type **(d) Data Abstraction**
- 31) A\_\_\_\_\_ data representation is defined as an independent part of the program.

(a) Abstract (b) **Concrete** (c) List (d) Tuple

32) \_\_\_\_\_ are functions that retrieve information from the data type.

(a) Constructors (b) **Selectors** (c) List (d) Tuple

33) \_\_\_\_\_ is made up of list or Tuples

(a) Set (b) **Pair** (c) Dictionary (d) Control Structures

34) A \_\_\_\_\_ is not just data, it has functions defined within it.

(a) **Class** (b) List (c) Pair (d) Object

35) List is constructed by using \_\_\_\_\_ and \_\_\_\_\_.

(a) ( ), , (b) < > , ; (c) [ ], , (d) [ ], :

36) Data abstraction concept allows programmers to treat code as \_\_\_\_\_.

(a) Statement (b) Function (c) **Object** (d) Variable

37) \_\_\_\_\_ provides modularity.

(a) Statement (b) **Abstraction** (c) Data hiding (d) Variable

38) Match the following

1) List	arr (1,2,3,4)
2) Tuples	getname (city)
3) Class	Student[ rno, name, mark]
4) Selectors	arr [1,2,3,4]

(a) 1-2-3-4 (b) 4-3-2-1 (c) **4-1-3-2** (d) 3-2-4-1

39) \_\_\_\_\_ offer a high level view.

(a) **Abstract Data Type** (b) Concrete Data Type (c) Primary Data Type (d) None of the above

40) Read the following code and answer for the question:

```
city = make city (name, lat, lon)
get name (city)
get lat (city)
get lon (city)
```

Identify the constructors from the above code.

(a) get name (city) (b) get lat (city) (c) get lon (city) (d) **make city (name, lat, lon)**

41) Read the following code and answer for the question:

```
city = make city (name, lat, lon)
get name (city)
get lat (city)
get lon (city)
```

Identify the selectors from the above code.

(a) city (b) **get name (city)** (c) make city (name, lat, lon) (d) None of the above

42) \_\_\_\_\_ extract individual pieces of information from the object.

(a) Constructors (b) Destructors (c) **Selectors** (d) All the above

43) The function which creates the object of class is \_\_\_\_\_.

(a) **Constructor** (b) Destructor (c) Selector (d) None of the above

- 44) Data abstraction is facilitated by using \_\_\_\_\_ and \_\_\_\_\_.
- (a) Constructors & destructors    **(b) Constructors & selectors**    (c) Selectors & destructors    (d) None of the above
- 45) What will happen when dividing integers?
- (a) Float approximation    (b) Losing the precision    **(c) Both a & b**    (d) None of these
- 46) \_\_\_\_\_ is a powerful strategy for designing programs.
- (a) Powerful thinking    (b) Mastermind    (c) Algorithmic thinking    **(d) Wishful thinking**
- 47) ADT can be implemented using \_\_\_\_\_.
- (a) singly linked list    (b) doubly linked list    **(c) either A or B**    (d) neither A nor B
- 48) ADT means \_\_\_\_\_.
- (a) Adaptive Technology    (b) Advanced Technology    **(c) Abstract Data Types**    (d) Advance Data Types
- 49) To facilitate data abstraction, programmer need to create \_\_\_\_\_ types of functions.
- (a) One    **(b) Two**    (c) Three    (d) Four
- 50) The data type whose representation is unknown are called \_\_\_\_\_.
- (a) Built in data type    (b) Derived data type    (c) Concrete data type    **(d) Abstract data type**