

Mumbai Educational Trust
Institute of Information Technology
Java Part

- 1: Java compiler compiles source code into _____ files.
(a) object (b) shared object (c) class
- 2: Under Java, _____ translates byte codes into machine instructions.
(a) JVM (b) Compiler (c) Runtime Library
- 3: There are _____ primitive types in Java type system.
(a) 6 (b) 8 (c) 12
- 4: In Java, every user-defined type is _____ type.
(a) always a reference (b) always a value
(c) either a reference or a value
- 5: Java offers a _____ like but more consistent syntax.
(a) SmallTalk (b) C++ (c) Pascal
- 6: Java long data-type identifies a _____ bit integer value.
(a) 16 (b) 32 (c) 64
- 7: A set of options is represented in Java using _____ type.
(a) an enum (b) an interface (c) a record
- 8: Java does not support pointer type because it is _____.
(a) non-portable (b) non-verifiable (c) non-controllable
- 9: In Java the memory for an instance of a reference type is always allocated _____.
(a) on heap (b) on stack (c) in data-section
- 10: Garbage collector is responsible for _____ memory blocks assigned to instances of reference types when they're no longer reachable.
(a) deleting (b) resizing (c) recycling
- 11: The binary representation of class insurance.Policy is loaded by default from path _____.
(a) ./Policy.class (b) insurance/Policy.class (c) policy/Insurance.class
- 12: A member of a Java class declared _____ modifier is visible only to other classes in the same package.
(a) without any (b) with protected (c) with public
- 13: _____ statement is used for expanding a simple class name to its fully qualified name.
(a) package (b) import (c) export
- 14: In Java statement _____ is used for actually raising an exception.
(a) try-catch (b) throws (c) throw
- 15: Every Java class ultimately inherits from _____ class.
(a) java.lang.Type (b) java.lang.Class (c) java.lang.Object
- 16: The method is _____ not defined in java.lang.Object class.
(a) equals (b) compareTo (c) hashCode

- 17: Object _____ indicates whether two objects refer to the same instance in the memory.
 (a) identity (b) equality (c) comparability
- 18: An interface can define _____.
 (a) a static field (b) an instance field (c) a parameterless constructor
- 19: The _____ modifier is illegal in an interface.
 (a) final (b) private (c) abstract
- 20: A class can inherit from _____.
 (a) a single interface and multiple classes
 (b) multiple interfaces and multiple classes
 (c) a single class and multiple interfaces

**ANSWERS: 1 C 2 A 3 B 4 A 5 B 6 C 7 A 8 B 9 A 10 C 11 B 12 A
 13 B 14 C 15 C 16 B 17 A 18 A 19 B 20 C.**

Q1: Complete the following statements choosing the correct alternative

- 1: Converting a primitive value type into an object of its wrapper class type is called _____.
 (a) casting (b) boxing (c) unboxing
- 2: The wrapper class for char type is _____.
 (a) java.lang.Byte (b) java.lang.Char (c) java.lang.Character
- 3: The type argument in a generic Java declaration is replaced by _____ at runtime
 (a) java.lang.Object (b) java.lang.Comparable (c) compile-time substituted type
- 4: For a generic class C, C<java.lang.Object> can be substituted _____.
 (a) by C<T> where T is any known type (b) by any reference type
 (c) only by C<java.lang.Object>
- 5: If X<T> is a generic class then only members of _____ can be applied to declaration X<?>
 (a) X (b) X in which T is return type (c) X in which T is a parameter type
- 6: In order to support for-each iteration a class must implement _____ interface.
 (a) java.lang.Iterable<E> (b) java.util.Iterable<E> (c) java.util.Iterator<E>
- 7: In the following implementations of java.util.Collection, _____ provides fast searching.
 (a) java.util.ArrayList (b) java.util.HashSet (c) java.util.TreeSet
- 8: _____ interface does not contain any definition for get method.
 (a) java.util.List (b) java.util.Set (c) java.util.Map
- 9: _____ interface does not extend java.lang.Iterable
 (a) java.util.List (b) java.util.Set (c) java.util.Map
- 10: By default only objects which implement _____ interface can be added to an object of java.util.TreeSet
 (a) java.util.Comparable (b) java.util.Comparer (c) java.util.Iterator
- 11: A functional interface must contain _____ one abstract method.
 (a) at least (b) exactly (c) at most
- 12: A method reference is obtained using _____ operator.
 (a) -> (b) => (c) ::
- 13: Lambda expression _____ can substitute a functional interface which defines following abstract method: long combine(int m, int n);
 (a) x -> x * x (b) (x, y) -> x + y (c) (x, y) -> x > y

- 14: In Stream API, _____ method performs a terminal operation.
 (a) forEach (b) filter (c) map
- 15: _____ enables a program to examine the structure of its object at runtime.
 (a) abstraction (b) polymorphism (c) reflection
- 16: The java.lang.Class for a type whose name is passed in a String type variable n can be determined using _____
 (a) n.getClass() (b) Class.forName(n) (c) n.class
- 17: In _____ binding method is discovered at runtime
 (a) static (b) early (c) late
- 18: An annotation with _____ retention can be examined using reflection.
 (a) RUNTIME (b) CLASS (c) SOURCE
- 19: On Linux, System.loadLibrary("series") will look for _____ in java.library.path.
 (a) series.so (b) series.dll (c) lib series.so
- 20: The first parameter in a C++ function which implements a static native method is of _____ type.
 (a) JNIEnv* (b) jclass (c) jobject

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Q1: Complete the following statements choosing the correct alternative

- 1: The code that a thread executes is passed to it through an object of _____ type.
 (a) java.lang.Thread (b) java.lang.Runnable (c) java.lang.Object
- 2: A background thread has its _____.
 (a) daemon property set to true (b) daemon property set to false
 (c) priority property set to zero
- 3: The run method of thread t1 calls join method of thread t2, then _____.
 (a) t1 waits for t2 to exit (b) t2 waits for t1 to exit (c) t1 waits for t2 to notify
- 4: java.lang.Thread.sleep(_____) will pause the current thread for 3 minutes
 (a) 3 (b) 180 (c) 180000
- 5: _____ enables a caller of a method to resume execution before that method returns.
 (a) synchronization (b) asynchrony (c) parallelism
- 6: _____ can acquire monitor of an object to execute a block of code synchronized on that
 (a) only one thread (b) at most 2 threads (c) only daemon threads
- 7: _____ operation of stream splits the stream into a number of streams indicated by number of hardware processors.
 (a) split (b) parallel (c) range
- 8: Platform provides _____ for enabling an application to persist data.
 (a) Threads (b) Sockets (c) Files
- 9: The _____ method of java.io.InputStream returns the number of bytes that can be read from the stream without blocking.
 (a) length (b) available (c) size

10: The operation `new java.io.FileOutputStream("info.txt")` will _____ if file "info.txt" does not exist.
(a) create a new file named info.txt (b) throw `java.io.FileNotFoundException`
(c) truncate file info.txt

11: Support for random-access files is made available in Java through _____ package
(a) `java.lang` (b) `java.util` (c) `java.io`

12: The size of IPv6 address is _____ bits.
(a) 32 (b) 64 (c) 128

13: The largest possible value for a TCP port address is _____.
(a) 1024 (b) 65535 (c) 65507

14: _____ socket is essentially a stream socket.
(a) TCP (b) UDP (c) ICMP

15: _____ is an example of hardware type specific link protocol.
(a) Ethernet (b) IP (c) HTTP

16: IP address 127.0.0.1 is also called _____ address.
(a) multicast (b) broadcast (c) loop-back

17: `java.net._____` provides support for a TCP listener.
(a) `Socket` (b) `ServerSocket` (c) `DatagramSocket`

18: In order to support serialization for its objects, a class must implement _____ interface.
(a) `java.io.Serializable` (b) `java.io.ObjectOutput` (c) `java.io.Persistent`

19: An instance field of a class defined with _____ modifier is not included in serialization of its objects.
(a) `private` (b) `static` (c) `transient`

20: HTTP request with _____ verb is sent for updating a resource on the server.
(a) GET (b) PUT (c) POST

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