Q1:

|  |
| --- |
| All classes must define at least one constructor |
| |  |  | | --- | --- | | Correct Answer: | Correct False | |

Q2:

|  |
| --- |
| All classes must have at least one constructor |
| |  |  | | --- | --- | | Correct Answer: | Correct True | |

Q3:

|  |
| --- |
| A singleton class has a counter to limit the number of instances created |
| |  |  | | --- | --- | | Correct Answer: | Correct False | |

Q4:

|  |
| --- |
| A static method of a class can only access its static variables |
| |  |  | | --- | --- | | Correct Answer: | Correct True | |

Q5:

|  |
| --- |
| A static variable belongs to the class itself rather than an instance |
| |  |  | | --- | --- | | Correct Answer: | Correct True | |

Q6:

|  |
| --- |
| The object returned by a factory method may be new, or a previously existing one |
| |  |  | | --- | --- | | Correct Answer: | Correct True | |

Q7:

|  |
| --- |
| A static method cannot be overridden but it can be hidden  A hidden method occurs when a subclass defines a static method with the same signature as a static method in the superclass. Hiding static methods is similar but not exactly the same as overriding methods.  <https://tonnygaric.com/blog/hiding-static-methods-in-java> |
| |  |  | | --- | --- | | Correct Answer: | Correct True | |

Q8:

|  |
| --- |
| The default constructor is created by the Java compiler |
| |  |  | | --- | --- | | Correct Answer: | Correct True | |

Q9:

|  |
| --- |
| A singleton class has only a single instance which is stored in a static class variable |
| <https://www.geeksforgeeks.org/singleton-class-java/> |
| |  |  | | --- | --- | | Correct Answer: | Correct True | |

Q10:

|  |
| --- |
| The default constructor has no arguments |
| |  |  | | --- | --- | | Correct Answer: | Correct True | |

Q11:

|  |
| --- |
| A final class is one that cannot be sub-classed |
| |  |  | | --- | --- | | Correct Answer: | Correct True | |

Q12:

|  |
| --- |
| The factory method conforms to an interface defined by an abstract factory |
| |  |  | | --- | --- | | Correct Answer: | Correct False | |

Q13:

|  |
| --- |
| A factory method is used to create an object of a class determined at run-time |
| |  |  | | --- | --- | | Correct Answer: | Correct True | |

Q14:

|  |
| --- |
| Objects of the String class are immutable |
| |  |  | | --- | --- | | Correct Answer: | Correct True | |

Q15:

|  |
| --- |
| A static variable cannot be accessed by an instance method |
| |  |  | | --- | --- | | Correct Answer: | Correct False | |

Q16:

|  |
| --- |
| The default constructor initialises instance variables with their default values |
| |  |  | | --- | --- | | Correct Answer: | Correct True | |

Q17:

|  |
| --- |
| The second edition of Design Patterns was published in 2003 with additional Java code |
| |  |  | | --- | --- | | Correct Answer: | Correct False | |

Q18:

|  |
| --- |
| A singleton class provides access to its single instance using a get method |
| |  |  | | --- | --- | | Correct Answer: | Correct True | |

Q19:

|  |
| --- |
| The famous Design Patterns book was published by the Gang of Four in 1994 |
| |  |  | | --- | --- | | Correct Answer: | Correct True | |

Q20:

|  |
| --- |
| A static final variable must be initialised via its declaration or a static block |
| |  |  | | --- | --- | | Correct Answer: | Correct True | |

Q21:

|  |
| --- |
| A static final variable must be initialised by each of its constructors |
| |  |  | | --- | --- | | Correct Answer: | Correct False | |

Q22:

|  |
| --- |
| A final class can only contain final variables and methods |
| |  |  | | --- | --- | | Correct Answer: | Correct True | |

Q23:

|  |
| --- |
| A static method cannot be invoked via an instance of the class |
| |  |  | | --- | --- | | Correct Answer: | Correct False | |

Q24:

|  |
| --- |
| A factory method is a method of a class that returns an object of that class's type |
| |  |  | | --- | --- | | Correct Answer: | Correct True | |

Q25:

|  |
| --- |
| A constructor can only be invoked using the new keyword |
| |  |  | | --- | --- | | Correct Answer: | Correct True | |

Q26:

|  |
| --- |
| A final method cannot be overridden by a subclass method |
| |  |  | | --- | --- | | Correct Answer: | Correct True | |

Q27:

|  |
| --- |
| A final static variable can be used to declare a constant value |
| |  |  | | --- | --- | | Correct Answer: | Correct True | |

Q28:

|  |
| --- |
| Declaring an object as final ensures that it is immutable |
| |  |  | | --- | --- | | Correct Answer: | Correct False | |

Q29:

|  |
| --- |
| All variables of an immutable class should be declared to be final  <https://www.geeksforgeeks.org/create-immutable-class-java/> |
| |  |  | | --- | --- | | Correct Answer: | Correct True | |

Q30:

|  |
| --- |
| Classic design patterns include Singleton Class, Factory Method, and Iterator Interface |
| |  |  | | --- | --- | | Correct Answer: | Correct True | |

Q31:

|  |
| --- |
| An immutable class should contain no mutator methods |
| |  |  | | --- | --- | | Correct Answer: | Correct True | |

Q32:

|  |
| --- |
| You can only override the default constructor by defining your own no argument constructor |
| |  |  | | --- | --- | | Correct Answer: | Correct False | |

Q33:

|  |
| --- |
| A final method cannot be either hidden or overridden |
| |  |  | | --- | --- | | Correct Answer: | Correct True | |

Q34:

|  |
| --- |
| A singleton class has a single private constructor |
| |  |  | | --- | --- | | Correct Answer: | Correct True | |

Q35:

|  |
| --- |
| The Design Patterns book explains these ideas using Smalltalk and C++ |
| |  |  | | --- | --- | | Correct Answer: | Correct True | |

Q36:

|  |
| --- |
| A constructor can be declared to be private or public |
| |  |  | | --- | --- | | Correct Answer: | Correct True | |