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Core Java-2 + Advanced Java Model Test

Trainee name: **Trainee id:**

1. How can you prevent a member variable from becoming serialized?
   a. By marking it transient
   b. By marking it private
   c. By marking it volatile
   d. You can not.

2. To declare a class named A with a generic type, use
   A. public class A<E> { ... }
   B. public class A<E, F> { ... }
   C. public class A(E) { ... }
   D. public class A(E, F) { ... }

3. To create a generic type bounded by Number, use
   A. <E extends Number>
   B. <E extends Object>
   C. <E>
   D. <E extends Integer>

4. Maps are sometimes called associative arrays. The Map interface provides three methods. Which of the following in not Map method -
   A. entrySet
   B. keyset
   C. values
   D. indexOf

5. Which of these types cannot be used to initiate a generic type?
   a) Integer class
   b) Float class
   c) Primitive Types
   d) Collections

6. class Employee implements Comparable{
   }
   Which of the following is an overloaded method?
   a. compareTo(object O)
   b. compareTo(employee)
   c. compare(object O1, object O2)
   d. All of the above

7. Which of the following is not method of Iterator?
   a. hasNext()
   b. next()
   c. add()
   d. remove()

8. Which of these packages contains all the classes and methods required for event handling in Java?
a) java.applet
b) java.awt
c) java.event
d) java.awt.event

9. Which of the data types below could be used to store elements in their natural order based on the compareTo method.
A. HashSet
B. TreeSet
C. LinkedHashSet
D. Collection
E. Set

10. To get an iterator from a set, you may use the _____ method.
A. getIterator
B. findIterator
C. iterator
D. iterators

11. Which of the following is correct to sort the elements in a list lst?
A. lst.sort()
B. Collections.sort(lst)
C. Arrays.sort(lst)
D. new LinkedList(new String[]{"red", "green", "blue"})

12. To append data to an existing file, use _____ to construct a FileOutputStream for file out.dat.
A. new FileOutputStream("out.dat")
B. new FileOutputStream("out.dat", false)
C. new FileOutputStream("out.dat", true)
D. new FileOutputStream(true, "out.dat")

13. Which type of exception occurs when creating a DataInputStream for a nonexistent file?
A. FileNotExist
B. FileNotExistException
C. FileNotFound
D. FileNotFoundException

14. Which is correct for Serializable ?
a) Static field are not serialized
b) Methods and constructors are not part of the serialized stream
c) When operation fails throw the NotSerializableException
d) The transient keyword prevents the data from being serialized
e) Above all

15. What is the job of flush() method ?

a) To flush your local disk
b) To force writes
c) To avoid specific data read
d) above all

16. TO use the readLine method we use
a) Filewriter
b) PrintWriter
c) BufferedRader
d) FileReader

17. Which of the following statements apply to an interface? (Choose two)
a. methods of an interface are implemented by a class
b. Multiple classes can implement the same interface.
c. A class can implement only single interface.
d. In an interface methods must have body part.

18. Which three are methods of the Object class?
i. notify();
ii. notifyAll();
iii. isInterrupted();
iv. synchronized();
v. interrupt();
vi. wait(long msecs);
vii. sleep(long msecs);
viii. yield();
a. 1, 2, 4
b. 2, 4, 5
c. 1, 2, 6
d. 2, 3, 4

19. Which method registers a thread in a thread scheduler?
a. run();
b. construct();
c. start();
d. register();

20. Which class or interface defines the wait(), notify(),and notifyAll() methods?
a. Object
b. Thread
c. Runnable
d. Class

21. public class MyRunnable implements Runnable

```
{
    public void run()
    {
        // some code here
    }
```

}

Which of these will create and start this thread?

a. new Runnable(MyRunnable).start();
b. new Thread(MyRunnable).run();
c. new Thread(new MyRunnable()).start();
d. new MyRunnable().start();

22. What is true about Model-View-Controller (MVC) Architecture?
   a. The model that stores the data that defines the component.
   b. The view that creates the visual representation of the component from the data in the model.
   c. The controller that deals with user interaction with the component and modifies the model and/of the view in response to a user action as necessary.
   d. A, B and C

23. Which of the following class provide a uniform cross –platform look-and-feel, and you can use it on any platform.
   a. Java.swing.plaf.metal.MetalLookAndFeel
   b. com.sum.java.swing.plaf.motif.MotifLookAndFeel
   c. com.sum.java.swing.plaf.windows.WindowsLookAndFeel
   d. com.sum.java.swing.plaf.windows.WindowsClassicLookAndFeel

24. Which Layout Manager is the default layout manager of the JPanel ?
   a. BorderLayout
   b. CardLayout
   c. GridLayout
   d. FlowLayout

25. Which of the following is not a standard cursor?
   a. DEFAULE_CURSOR
   b. WAIT_CURSOR
   c. CLSE_CURSOR
   d. SW_RESIZE_CURSOR

26. Which Object we use to call the addActionListener() method to register Listener
   a) JWindow
   b) JButtion
   c) JOptionPane
   d) Above all

27. Which are Low-level Event
   a) FocusEvent
   b) MouseEvent
   c) KeyEvent
   d) ActionEvent

28. Which is not WindowListener Interface

a) WindowDeiconified(WindowEvent e)
b) WindowDeactivated(WindowEvent e)
c) WindowOpening(WindowEvent e)
d) WindowClosing(WindowEvent e)
e) Above all

29. Which of these values is returned by read() method is end of file (EOF) is encountered?
a) 0
b) 1
c) -1
d) Null

30. Which of these method Map class is used to obtain an element in the map having specified key?
a) search()
b) get()
c) set()
d) look()

31. What will be the output of the program?

```
class MyThread extends Thread
{
    public static void main(String [] args)
    {
        MyThread t = new MyThread();
        t.start();
        System.out.print("one. ");
        t.start();
        System.out.print("two. ");
    }
    public void run()
    {
        System.out.print("Thread ");
    }
}
```

A. Compilation fails
B. An exception occurs at runtime.
C. It prints "Thread one. Thread two."
D. The output cannot be determined.

32. Which of these is a process of writing the state of an object to a byte stream?
a) Serialization
b) Externalization
c) File Filtering

d) All of the mentioned

33. What are the benefits of encapsulation? (Choose two)
a. To protect data integrity
b. Application maintainability
c. Reusability
d. Exception handling
e. None

34. What is the priority of the thread in output of this program?

```
class multithreaded_programing {
    public static void main(String args[]) {
        Thread t = Thread.currentThread();
        System.out.println(t);
    }
}
```

a)4
b)5
c)0
d)1

35. Which of the following are true statements (Choose two).
a. A class can inherit from more than one class by using the keyword extends.
b. An interface can inherit from more than one interface by using the keyword extends.
c. A class can inherit from more than one interface by using the keyword extends.
d. A class can inherit from more than one interface by using the keyword implements.

36. What File method creates a new disk directory?
a. makeDirectory()
b. dir()
c. list()
d. mkdir()

37. What method will immediately stop a program?
A.System.gc()
B.System.exit(0)
C.System.setErr()
D.return()

38. What method of a frame returns a reference to its content pane?
A.getContentPane()
B.contentPane()
C.framePane()
D.getPane()

39. How can the user be prevented from entering text into a text field?
A. By using setEditable(true)
B. By using setEditable(false)
C. By using setNotEditable()
D. By using setVisible(false)

40. Which of these keywords is used to upper bound a wildcard?
a) stop
b) bound
c) extends
d) implements

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Competency Unit -STCESADJ2EE 402
Module-04
Total Marks-40

1. Invoking _____ returns the width of the string in a FontMetrics object fm.
A. getLength(s)
B. fm.getHeight(s)
C. fm.stringWidth(s)
D. fm.getWidth(s)

2. The following are the methods to obtain font properties in a FontMetrics object fm.
A. fm.getAscent()
B. fm.getDescent()
C. fm.getLeading()
D. fm.getHeight()

3. You can construct a JSplitPane using _____.
A. new JSplitPane()
B. new JSplitPane(Component)
C. new JSplitPane(Component[])
D. new JSplitPane(Component, Component)

4. _____ is a component that enables the user to choose a single value or multiple values.
A. A text field
B. A combo box
C. A list
D. A label

5. _____ sets the background of the selected item in list jlst to yellow.
A. jlst.setBackground(Color.YELLOW)
B. jlst.setSelectedBackground(Color.YELLOW)
C. jlst.setSelectionBackground(Color.YELLOW)
D. jlst.setSelectionbackground(Color.YELLOW)

6. The following are properties of a JScrollBar.
A. minimum
B. maximum
C. orientation
D. visibleAmount

7. Which of the following statements are true?
A. You can create a JSlider bar by specifying its orientation.
B. JSlider fires an ActionEvent.
C. JSlider fires an AdjustmentEvent.
D. JSlider fires a javax.swing.event.ChangeEvent.
E. A listener of a JSlider must implement ChangeEvent and the stateChanged method.

8. The following are properties of a JSlider.
A. minimum
B. maximum
C. orientation
D. visibleAmount

9. Which of the following are constructor of a JPopupMenu.
A. JPopupMenu()
B. JPopupMenu(String label)
C. JPopupMenu(String label, Jmenu menu)
D. none of them

10. Pressing a button generates a(n) _____ event.
A. ItemEvent
B. MouseEvent
C. MouseMotionEvent
D. ActionEvent

E. ContainerEvent

11. Clicking the closing button on the upper-right corner of a frame generates a(n) ___event.
A. ItemEvent
B. WindowEvent
C. MouseMotionEvent
D. ComponentEvent
E. ContainerEvent

12. To listen to mouse clicked events, the listener must implement the _____ interface or extend the _____ adapter.
A. MouseListener/MouseAdapter
B. MouseMotionListener/MouseMotionAdapter
C. WindowListener/WindowAdapter
D. ComponentListener/ComponentAdapter

13. To check whether a DELETE key is pressed or released, which handler should be used?
A. keyPressed(KeyEvent e)
B. keyReleased(KeyEvent e)
C. keyTyped(KeyEvent e)

14. What interface must a button listener implement?
A. ActionListener
B. ButtonListener
C. ClickListener
D. DeviceListener

15. What method extracts the command string from an event object?
A. getActionCommand()
B. getCommand()
C. getCommandString()
D. getButtonText()

16. What method must a button listener implement?
A. buttonAction()
B. actionPerformed()
C. eventAction()
D. actionMethod()

17. Clicking a JList object generates _____ events.
A. ActionEvent and ItemEvent
B. ItemEvent and ComponentEvent
C. ComponentEvent and ContainerEvent
D. ActionEvent and ContainerEvent

18. Which of the following statements are true?
A. All the methods in JRadioButton are inherited from javax.swing.AbstractButton.
B. All the methods in JRadioButton are also in JButton.
C. JButton and JRadioButton fire same types of events.
D. You can use an icon on JRadioButton.

19. Clicking a JRadioButton generates _____ events.

A. ActionEvent
B. ItemEvent
C. ComponentEvent
D. ContainerEvent

20. In which places can put the event handling code
A) Same class
B) Other class
C) Annonymous class
D) All mentioned above

21. Which package provides many event classes and Listener interfaces for event handling?
A) java.awt
B) java.awt.Graphics
C) java.awt.event
D) None of the above

22. Which of the following are true?
a) The MouseListener interface defines methods for handling mouse clicks.
b) The MouseMotionListener interface defines methods for handling mouse clicks.
c) The MouseClickListener interface defines methods for handling mouse clicks.
d) The ActionListener interface defines methods for handling the clicking of a button.

23. Suppose that you want to have an object eh handle the TextEvent of a TextArea object t. How should you add eh as the event handler for t?
a) t.addTextListener(eh);
b) eh.addTextListener(t);
c) addTextListener(eh.t);
d) addTextListener(t,eh);

24. What two things must your program do to respond to a particular type of event?
a. Set up an event generator, and set up an event listener.
b. Create an event listener object for the type of event, and register it with the object that generates those events.
c. Create a container for the events, and register it with the system.
d. Create a Frame object and register it with the event listeners.

25. What method of a Frame object is used to register a window listener with it?
a. addWindowListener()
b. register()
c. setListener()
d. ignoreEvent()

26. Which of these methods are used to register a keyboard event listener?
a) KeyListener()
b) addKistener()
c) addKeyListener()
d) eventKeyboardListener()

27. What is a listener in context to event handling?
a) A listener is a variable that is notified when an event occurs
b) A listener is a object that is notified when an event occurs
c) A listener is a method that is notified when an event occurs
d) None of the mentioned

28. Which of these methods can be used to determine the type of event?
a) getID()
b) getSource()
c) getEvent()
d) getEventObject()

29. Which of these class is super class of all the events?
a) EventObject
b) EventClass
c) ActionEvent
d) ItemEvent

30. Which of these packages contains all the classes and methods required for even handling in Java?

a) java.applet
b) java.awt
c) java.event
d) java.awt.event

31. Which of these are integer constants defined in ActionEvent class?

a) ALT_MASK
b) CTRL_MASK
c) SHIFT_MASK
d) All of the mentioned

32. Which of these methods can be used to determine the type of adjustment event?

a) getType()
b) getEventType()
c) getAdjustmentType()
d) getEventObjectType()

33. Which of these events will be notified if scroll bar is manipulated?

a) ActionEvent
b) ComponentEvent
c) AdjustmentEvent
d) WindowEvent

34. Which of these events is generated when the component is added or removed?

a) ComponentEvent
b) ContainerEvent
c) FocusEvent
d) InputEvent

35. Which of these events is generated when the a window is closed?

a) TextEvent
b) MouseEvent
c) FocusEvent
d) WindowEvent

36. Which of these methods can be used to obtain the coordinates of a mouse?

a) getPoint()
b) getCoordinates()
c) getMouseXY()
d) getMouseCordinates()

37. Which of these are constants defined in WindowEvent class?

a) WINDOW_ACTIVATED
b) WINDOW_CLOSED
c) WINDOW_DEICONIFIED
d) All of the mentioned

38. Which of these interfaces define a method itemStateChanged()?

a) ComponentListener
b) ContainerListener
c) ActionListener
d) ItemListener

39. Which of these is superclass of WindowEvent class?

a) WindowEvent
b) ComponentEvent
c) ItemEvent
d) InputEvent

40. Which of these methods is used to get x coordinate of the mouse?

a) getX()
b) getXCoordinate()
c) getCoordinateX()
d) getPointX()

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QUIZ on Java GUI (401)

23

1. Which is the container that contain title bar and can have MenuBars. It can have other components like button, textfield etc.?

A) Panel B) Frame
C) Window D) Container

2. The following specifies the advantages of
It is lightweight.
It supports pluggable look and feel.
It follows MVC (Model View Controller) architecture.

A) Swing B) AWT
C) Both A & B D) None of the above

3. You want to construct a text area that is 80 character-widths wide and 10 character-heights tall. What
code do you use?

A. new TextArea(80, 10)
B. new TextArea(10, 80)

4. Which of the following are direct or indirect subclasses of Container?

A. Frame
B. TextArea
C. MenuBar
D. FileDialog
E. Applet

5. Which method is used to set the text of a Label object?

A. setText( )
B. setLabel( )
C. setTextLabel( )
D. setLabelText( )

6. Which constructor creates a TextArea with 10 rows and 20 columns?

A. new TextArea(10, 20)
B. new TextArea(20, 10)
C. new TextArea(new Rows(10), new columns(20))
D. new TextArea(200)

7. Which method will cause a Frame to be displayed?

A. show( )
B. setVisible( )
C. display( )
D. displayFrame( )

8. Which method is used to set the layout of a container?

A. startLayout( )
B. initLayout( )
C. layoutContainer( )

D. setLayout( )

9. Which layout should you use to organize the components of a container in a tabular form?
   A. CardLayout
   B. BorederLayout
   C. FlowLayout
   D. GridLayout

10. Which of the following are true?
   A. A Dialog can have a MenuBar.
   B. MenuItem extends Menu.
   C. A MenuItem can be added to a Menu.
   D. A Menu can be added to a Menu.

11. _____ are referred to as heavyweight components.
   A. AWT components
   B. Swing components
   C. GUI components
   D. Non-GUI components

12. Which component cannot be added to a container?
   A. JPanel
   B. JButton
   C. JFrame
   D. JComponent

13. Which of the following classes are in the java.awt package?
   A. Color
   B. Font
   C. Component
   D. JFrame
   E. JComponent

14. Analyze the following code.

```
import java.awt.*;
import javax.swing.*;

public class Test {
  public static void main(String[] args) {
    JFrame frame = new JFrame("My Frame");
    frame.add(new JButton("OK"));
    frame.add(new JButton("Cancel"));
    frame.setDefaultCloseOperation(JFrame.EXIT_ON_CLOSE);
    frame.setSize(200, 200);
    frame.setVisible(true);
  }
}
```

   A. Only button OK is displayed.
   B. Only button Cancel is displayed.

C. Both button OK and button Cancel are displayed and button OK is displayed on the left side of button Cancel.
D. Both button OK and button Cancel are displayed and button OK is displayed on the right side of button Cnacel.

15. What layout manager should you use so that every component occupies the same size in the container?

A. a FlowLayout
B. a GridLayout
C. a BorderLayout
D. any layout

16. To set a FlowLayout in panel jp, you can use the method _____.
A. jp.setLayout(new FlowLayout());
B. jp.setLayout(new FlowLayout(FlowLayout.CENTER));
C. jp.setLayout(new FlowLayout(FlowLayout.center));
D. jp.setLayout(FlowLayout());

17. The default layout out of a contentPane in a JFrame is _____.
A. FlowLayout
B. GridLayout
C. BorderLayout
D. None

18. _____ creates a color object.
A. new Color(0, 0, 0)
B. new Color(0, 266, 0)
C. new Color(255, 255, 255)
D. new Color(1, 2, 3)

19. The method _____ sets the font (Helvetica, 20-point bold) in component C.
A. c.setFont(new Font("Helvetica", Font.bold, 20))
B. c.setFont(new Font("helvetica", BOLD, 20))
C. c.setFont(Font("Helvetica", Font.BOLD, 20))
D. c.setFont(new Font("Helvetica", Font.BOLD, 20))

20. To specify a font to be bold and italic, use the font style value _____
A. Font.PLAIN
B. Font.BOLD
C. Font.ITALIC
D. Font.BOLD + Font.ITALIC

21. The default layout out of a JPanel is _____.
A. FlowLayout
B. GridLayout
C. BorderLayout
D. None

22. Which of the following properties are in FlowLayout?
A. hgap
B. vgap
C. alignment
D. layout
E. visible

23. The method _____ gets the text (or caption) of the button jbt.
A. jbt.text()
B. jbt.getText()
C. jbt.findText()
D. jbt.retrieveText().

24. The method _____ creates a IconImage for file c:\image\us.gif.
A. new ImageIcon("c:\image\us.gif");
B. new Icon("c:\image\us.gif");
C. new ImageIcon("c:\\image\\us.gif");
D. new Icon("c:\\image\\us.gif");

25. _____ checks whether the JCheckBox jchk is selected.
A. jchk.getSelected()
B. jchk.selected()
C. jchk.isSelected().
D. jchk.select()

26. _____ can be used to enter or display a string.
A. A label
B. A button
C. A check box
D. A radio button
E. A text field

27. Which of the following statements are true?
A. You can specify a horizontal text alignment in a text area.
B. You can specify the number of columns in a text area.
C. You can disable editing on a text area.
D. YOu can create a text field with a specified text area.

28. _____ returns the selected item on a JComboBox jcbo.
A. jcbo.getSelectedIndex()
B. jcbo.getSelectedItem()
C. jcbo.getSelectedIndices()
D. jcbo.getSelectedItems()

29. Given a Graphics object g, to draw a line from the upper left corner to the bottom right corner, you use _____.

A. g.drawLine(0, 0, 100, 100)
B. g.drawLine(0, 0, getWidth(), getHeight())
C. g.drawLine(0, 0, getHeight(), getHeight())
D. g.drawLine(0, 0, getWidth(), getWidth())

30. _____ is a component that enables the user to choose a single value or multiple values.

A. A text field
B. A combo box
C. A list
D. A label

31. To wrap a line in a text area jta on words, invoke _____.

A. jta.setWrapStyleWord(false)
B. jta.setWrapStyleWord(true)
C. jta.wrapStyleWord()
D. jta.wrapWord()

32. How should a command string be compared with a literal string?
A. equals()
B. ==
C. =
D. equalsIgnoreCase()

33. What method (of a frame) returns a reference to its content pane?

A. contentPane()
B. framePane()
C. getPane()
D. getContentPane()

34. What type of object determines where GUI components go in the content pane?

A. The layer organizer.
B. The layabout programmer.
C. The layout manager.
D. The frame hanger.

35. Which of the following methods are invoked by the AWT to support paint and repaint operations?

A. paint( )
B. repaint( )
C. draw( )
D. redraw( )

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QUIZ on Java Collection-Generics

1. Which of the following statements is/are correct?
   A. Comparable<String> c = new String("abc");
   B. Comparable<String> c = "abc";
   C. Comparable<String> c = new Date();
   D. Comparable<Object> c = new Date();

2. The Collection interface is the base interface for _____.
   A. Set B. List C. ArrayList D. LinkedList
   E. Map

3. The Map is the base interface for _____.
   A. TreeMap B. HashMap C. LinkedHashMap D. ArrayList E. LinkedList

4. Which of the following methods are in the Collection interface?
   A. clear() B. isEmpty() C. size() D. getSize()

5. Which of the data types below does not allow duplicates?
   A. Set B. List C. Vector D. Stack E. LinkedList

6. Which of the following data types does not implement the Collection interface?
   A. HashSet B. TreeSet C. ArrayList D. LinkedList E. Map

7. Which of the data types below could be used to store elements in their natural order based on the compareTo method.
   A. HashSet B. TreeSet C. LinkedHashSet D. Collection E. Set

8. To get an iterator from a set, you may use the _____ method.
   A. getIterator B. findIterator C. iterator D. iterators

9. If you want to store non-duplicated objects in the order in which they are inserted, you should use _____.
   A. HashSet B. LinkedHashSet C. TreeSet D. ArrayList E. LinkedList

10. When you create an ArrayList using ArrayList<String> x = new ArrayList<String>(2), _____
    A. two elements are created in the array list.
    B. no elements are currently in the array list.
    C. the array list size is currently 2.
    D. the array list capacity is currently 2.

11. Which method do you use to remove an element from a set or list named x?
    A. x.delete(element) B. x.remove(element) C. x.deletes(element)
    D. x.removes(element) E. None of the above

12. Which of the following is correct to sort the elements in a list lst?
    A. lst.sort()
    B. Collections.sort(lst)
    C. Arrays.sort(lst)

D. new LinkedList(new String[]{"red", "green", "blue"})

13. Which data type should you use if you want to store duplicate elements and be able to insert or delete elements anywhere efficiently.
A. ArrayList
B. LinkedList
C. Vector
D. Set
E. Stack

14. Which of the following are correct methods in Map?
A. put(Object key, Object value)
B. put(Object value, Object key)
C. get(Object key)
D. get(int index)

15. Analyze the following code:

```
public class Test {
  public static void main(String[] args) {
    Map map = new HashMap();
    map.put("123", "John Smith");
    map.put("111", "George Smith");
    map.put("123", "Steve Yao");
    map.put("222", "Steve Yao");
  }
}
```

A. After all the four entries are added to the map, "123" is a key that corresponds to the value "John Smith".
B. After all the four entries are added to the map, "123" is a key that corresponds to the value "Steve Yao".
C. After all the four entries are added to the map, "Steve Yao" is a key that corresponds to the value "222".
D. After all the four entries are added to the map, "John Smith" is a key that corresponds to the value "123".
E. A runtime error occurs because two entries with the same key "123" are added to the map.

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11

Quiz on IO Streams and Thread

1. The input/output package usually used with Java is:
   a. java.input c. java.inout b. java.io d. java.file

2. Can data flow through a given stream in both directions?
   a. No; a stream has one direction only, input or output. c. Yes; only one stream is needed to read and write a file.
   b. No; streams only work for output. d. Yes; but only one direction at a time.

3. What is the name of a stream that connects two running programs?
   a. Program stream c. Pipe
   b. Conduit d. Channel

4. Can a stream act as a data source for another stream?
   a. No. Streams must be connected directly to physical devices.
   b. No. Streams do not deal with data.
   c. Yes. Some streams can be connected together.
   d. Yes. An input stream can be connected to an output stream.

5. What is a *buffer*?
   a. A section of memory used as a staging area for input or output data.
   b. The cable that connects a data source to the bus.
   c. Any stream that deals with character IO.
   d. A file that contains binary data.

6. What is a stream that transforms data in some way called?
   a. Processing stream. c. UTF stream.
   b. Transformer. d. Pipe

7. A stream that is intended for general purpose IO, not usually character data, is called...
   a. Reader c. Byte Stream
   b. Writer d. Character Stream

8. What is the name of the abstract base class for streams dealing with *character input*?
   a. InputStream c. Reader b. OutputStream d. Writer

9. Is the character data used inside a Java program exactly the same format as the character data in a text file written by Java?
   a. No. Internally Java uses 8-bit character data, but text files always use ASCII.
   b. No. Internally Java programs always use 16-bit *char* data; but text files are written in UTF format, which is different.
   c. Yes. Java uses the same format for characters inside a program and in text files.
   d. Yes. Character data has always used the same format for all computers and all files.

10. What is the name of the abstract base class for streams dealing with *general purpose* (non character) input?

a. InputStream
b. OutputStream
c. Reader
d. Writer

11. What is the name of the method used to start a thread execution?

A. init();
B. start();
C. run();
D. resume();

12. Which two are valid constructors for Thread?

1. Thread(Runnable r, String name)
2. Thread()
3. Thread(int priority)
4. Thread(Runnable r, ThreadGroup g)
5. Thread(Runnable r, int priority)

A. 1 and 3
B. 2 and 4
C. 1 and 2
D. 2 and 5

13. Which three are methods of the Object class?

1. notify();
2. notifyAll();
3. isInterrupted();
4. synchronized();
5. interrupt();
6. wait(long msecs);
7. sleep(long msecs);
8. yield();

A. 1, 2, 4
B. 2, 4, 5
C. 1, 2, 6
D. 2, 3, 4

14.

```
class X implements Runnable
{
   public static void main(String args[])
   {
      /* Missing code? */
   }
   public void run() {}
}
```

Which of the following line of code is suitable to start a thread ?

A. Thread t = new Thread(X);
B. Thread t = new Thread(X); t.start();

C. X run = new X(); Thread t = new Thread(run); t.start();

D. Thread t = new Thread(); x.run();

15. Which cannot directly cause a thread to stop executing?

A. Calling the SetPriority() method on a Thread object.

B. Calling the wait() method on an object.

C. Calling notify() method on an object.

D. Calling read() method on an InputStream object.

16. Which two of the following methods are defined in class Thread?

1. start()
2. wait()
3. notify()
4. run()
5. terminate()

A. 1 and 4

B. 2 and 3

C. 3 and 4

D. 2 and 4

17. Which three guarantee that a thread will leave the running state?

1. yield()
2. wait()
3. notify()
4. notifyAll()
5. sleep(1000)
6. aLiveThread.join()
7. Thread.killThread()

A. 1, 2 and 4

B. 2, 5 and 6

C. 3, 4 and 7

D. 4, 5 and 7

18. Which of the following will directly stop the execution of a Thread?

A. wait()

B. notify()

C. notifyall()

D. exits synchronized code

19. Which method must be defined by a class implementing the java.lang.Runnable interface?

A. void run()

B. public void run()

C. public void start()

D. void run(int priority)

20. Which will contain the body of the thread?

A. run();

B. start();

C. stop();

D. main();