



PUNE VIDYARTHI GRIHA'S
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Question Bank

Class: S.Y.B. Sc.CS
Subject: Advanced Java

Semester: IV

Unit-I

1. Which of these packages contains all the categories and ways needed for event handling in Java?
 - a) java.applet
 - b) java.awt
 - c) java.event
 - d) java.awt.event

2. What is an occurrence in the delegation event model employed by Java programming language?
 - a) An event is an object that describes a state change in a source
 - b) An event is an object that describes a state change in processing
 - c) An event is an object that describes any change by the user and system
 - d) An event is a class used for defining object, to create events

3. Which of the following methods can be used to register a keyboard event listener?
 - a) KeyListener()
 - b) addKistener()
 - c) addKeyListener()
 - d) eventKeyboardListener()

4. Which of the following given methods is correct for registering a Mouse Motion Listener?
 - a) addMouse()
 - b) addMouseListener()
 - c) addMouseMotionListner()
 - d) eventMouseMotionListener()

5. In which of these libraries Event class is defined?
 - a) java.io
 - b) java.lang
 - c) java.net
 - d) java.util

6. Which of these events will be invoked if the scroll bar is moved?
 - a) ActionEvent
 - b) ComponentEvent

- c) AdjustmentEvent
- d) WindowEvent

7. If we close an applet's window, which of these events will be generated ?

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

8. Suppose that you want to have an object 'te' to handle the TextEvent of a TextArea object t. How should you add the as the event handler for t?

- a. t.addTextListener(te);
- b. eh.addTextListener(t);
- c. addTextListener(te,t);
- d. addTextListener(t,te);

9. Which of the given following class is considered a super class of all the events?

- a) EventObject
- b) EventClass
- c) ActionEvent
- d) ItemEvent

10. To determine the type of event, which of the given following methods can be used?

- a) getID()
- b) getSource()
- c) getEvent()
- d) getEventObject()

11. Which of the given following containers doesn't contain a title bar and MenuBars?

- a. Window
- b. Frame
- c. Panel
- d. Container

12. What will be the expected work done by the following given code? Textfield text = new Textfield(10);

- a. Creates a text object that can hold 10 columns of text.
- b. Creates a text object that can hold 10 rows of text.

- c. Creates the object text and initializes it with the value 10.
- d. The code is illegal.

13. The setBackground() can be used as a part of the following class:

- a. Graphics
- b. Applet
- c. Container
- d. Component

14. Give the abbreviation of AWT?

- a.** Applet Windowing Toolkit
- b.** Abstract Windowing Toolkit
- c.** Absolute Windowing Toolkit
- d.** Applet Window Tools

15. Which of the following methods can be used to set or change the text in a Label?

- a)** setText()
- b)** getText()
- c)** getLabel()
- d)** setLabel()

16. Which of the following components in AWT can include other components?

- a)** Window
- b)** Container
- c)** Panel
- d)** Frame

17. Which are the following controls that do not interact with the user?

- a.** Choice
- b.** List
- c.** Labels
- d.** Checkbox

18. The following
- a) Lightweight.
 - b) Supports good features for GUI look and feel.**
 - c) Follows MVC architecture
19. Which of the following packages provides Event classes and Listener interfaces for event handling?
- a. java.awt
 - b. java.awt.Graphics
 - c. java.awt.event
 - d. javax.awt.event
20. Which of the following will Implement the Listener interface and overrides its methods and will also help developers to register the component with the Listener
- a. Exception Handling**
 - b. String Handling**
 - c. Event Handling**
 - d. Listener Handling**
21. Which of the following is the advantages of Swing:
- a. Slower than AWT
 - b. GUI Look and Feel
 - c. It requires Java 1.2 or a separate JAR file.
 - d. Act exactly like native components
22. Following class is used for creating Button in the Frame using Swing:
- a. JRadioButton
 - b. JButton
 - c. JRadioButtonMenuItem
 - d. JCheckBox
23. Following class is used for creating ScrollBar in the Frame using Swing:
- a. JScrollBar
 - b. JScrollBar.ScrollPane
 - c. JSplitPane
 - d. JSlider
24. Following class is used for creating component which can represent data in rows and columns in the Frame using Swing:
- a. JTabbedPane
 - b. JTextPane
 - c. JTable
 - d. JToolBar
25. Following class is used for showing the small text and image in the Frame using Swing:
- a. JLabel
 - b. JText
 - c. JTextPane
 - d. JEditorPane

26. Following class is used to create a list where you select the one or more than items in Swing.
- JList
 - JMenu
 - JMenuBar
 - JMenuItem
27. Following class provides the facility to edit the text in a single line in Swing.
- JTextField
 - JTextArea
 -
 - JTextPane
 - JLabel
28. Following class provides data in a hierarchical way in Swing:
- JToolTip
 - JTree
 - JViewport
 - JToolBar
29. Following is the package for using Swing
- javax.swing.*;
 - java.swing.*;
 - java.awt.swing.*
 - javax.awt.swing.*
30. Following is the container which allow the components to placed inside it including panel in Swing:
- JPanel
 - JFrame
 - JWindow
 - JDialog
31. From the following which is going to be a small window that pops up and displays a series of choices in Swing.
- JPopupMenu
 - JList
 - JDialog
 - JTool
32. Following is the Layout which is used for arranging the components in Frame in different regions using Swing:
- java.awt.BorderLayout
 - java.awt.FlowLayout
 - java.awt.GridLayout
 - java.awt.CardLayout
33. Following is the Layout which is used to arrange the components in rectangular grid using Swing:
- java.awt.BorderLayout
 - java.awt.FlowLayout
 - java.awt.GridLayout
 - java.awt.CardLayout

34. Following is the Layout which is used to arrange the components in a line, one after another using Swing:

- a. java.awt.BorderLayout
- b. java.awt.FlowLayout
- c. java.awt.GridLayout
- d. java.awt.CardLayout

35. Following is the Layout which is used to display the progress of the task using Swing:

- a. JScrollBar
- b. JProgressBar
- c. JMenuBar
- d. JLabel

36. What is the Latest Version of JDK? a)JDK 8

- b) JDK 7
- c) JDK 12
- d) JDK 14

37. J2EE is an extended version of:

- a)J2SE
- b)J2ME
- c)J2SM
- d)J2MS

38. Which method is valid from the following to establish the connection with the specific url, username and password in a Driver Manager class?

- a.** public static void registerDriver(Driver driver)
- b.** public static void deregisterDriver(Driver driver)
- c.** public static Connection getConnection(String url)
- d.** public static Connection getConnection(String url,String userName,String password)

38. What does JDBC stand for? a.Java

- database connectivity
- b.Java database concept
- c.Java database communications d.Java DB Connectivity

40. Thin Driver is _____ type from JDBC Driver Types.

- a.Type 1
- b.Type 4
- c.Type 3
- d.Type 2

41. What is the following package used for importing sql?

- a.`import java.sql.http*`
- b. `import javax.sql.*`
- c. `import java.sql.*`
- d. `import javax.servlet.sql.*`

42. Which JDBC driver Type is JDBC-ODBC bridge?

- a.Type 1
- b.Type 2
- c.Type 3
- d.Type 4

UNIT II

43. The _____ defines an API for communication between the Web server and the application program.
- a) Servlet
 - b) Server
 - c) Program
 - d) Randomize
44. How many JDBC driver types does Sun define?
- a) One
 - b) Two
 - c) Three
 - d) Four
45. Which interface is used for Request and Response from the following and it should be protocol specific.
- a)HttpServletRequest and HttpServletResponse
 - b)HttpRequest and HttpResponse
 - c)ServletRequest and ServletResponse
 - d)Request and Response
46. Which html tag can be used to send the request to the servlet?
- a)<action>
 - b)<form>
 - c)<input>
 - d)<a>
47. Which packages provide different interfaces and classes for servlet API?
- a)javax.servlet
 - b) javax.servlet.http

- c) java.servlet
- d) java.servlet.*

48. Which class is protocol-independent in Servlet API?

- a) GenericServlet
- b) HttpServlet
- c) HttpServletRequest
- d) HttpServletResponse

49. Which one is correct for the lifecycle of a servlet?

- a.** Servlet class is loaded
- b.** Servlet instance is created
- c.** loading, creation, init, Service, destroy method is invoked
- d.** Loading, creation

50. Which of the following methods is used to accept an attribute in servlets using HTTP Session object?

- a) getAttribute
- b) alterAttribute
- c) updateAttribute
- d) setAttribute

51. _____ RequestDispatcher presents the _____ package.

- a. javax.servlet.http.*
- b. javax.servlet.*
- c. java.servlet.*
- d. java.servlet.http.*

52. How to get the object of RequestDispatcher, which of the following is correct?

- a. getRequest()
- b. getResponse()
- c. getRequestDispatcher()
- d. getInclude()

53. _____ are text files placed on the client computer by the application which is meant for keeping various information used for tracking reasons by the server.

- a.Cookies. b.Session
- c.URL Rewriting
- d.XML Format

54. _____ type of Cookie is valid for only a single session.

- a.Persistent Cookie
- b.Non Persistent Cookie
- c.Session d.URL
Rewriting

55. _____ package can be used to access various functionalities of cookies.

- javax.servlet.http.*
- javax.servlet.*
- java.servlet.http.*
- java.servlet.*

56. _____ will create a cookie with a specific name and value.

- a.Cookie(String name, String value)
- b.Cookie()
- c.Cookie(String name=value)
- d.Cookie(String value=name)

57. Give method to set maximum age of Cookie from the following:

- a.public void setMaxAge(int expiry)
- b.public void setMaxAge() c.public void
setMax(int expiry)

d.public void setMax()

58. Which of the following are the type of Editions for MP3 Player?

- a.Standard Edition
- b.Micro Edition
- c.Enterprise Edition
- d.Mobile Edition

59. To implement Servlet, which class is been used from the following:

- a.ServletRequest
- b.ServletResponse
- c.HttpServlet d.Servlet

60. ___ is a technology to Servlet which allows the mixing of dynamic and static web contents.

- a. Servlet
- b. JSP
- c. EJB
- d. JSF

61. JSP technology is consisting of the following feature _____

- a. WORA
- b. Platform Dependent
- c. Inefficient
- d. Inconvenient

62. In MVC Architecture, JSP work as:

- a. Model
- b. Controller
- c. View
- d. Presentation Layer

63. In JSP, Initialization is done by calling the _____ method.

- a. `jspDestroy()`
- b. `jspInit()`
- c. `jspService()`
- d. `jspInitialization`

64. A server side comments is of the form:

- a. `<%-- comments --%>`
- b. `<!-- comments ...`
- c. `<%=----- %>`
- d. `<% @ directive attribute="value" %>`

65. Identify the Scripting element for replacing `out.print` statement in JSP from the following:

- a. JSP Scriptlet tag
- b. JSP Expression tag
- c. JSP Declaration tag
- d. JSP Comment tag

66. `<%= statement %>` is the following tag:

- a. Scriptlet tag
- b. Declarative tag
- c. Expression tag
- d. Comment tag

67. Identify the type of Directive is used for importing java statements in JSP from the given following options:

- a. Scriptlet
- b. Include
- c. Page
- d. Taglib

68. The ___ attribute from JSP Directive is used to declare that the current page is the error page.

- a. Errorpage
- b. isErrorPage
- c. errorPage
- d. ErrorPage

69. Standard JSP tags begin with the _____ prefix

- a. Jsp:
- b. Jsp:forward
- c. Jsp:include
- d. jsp:start

70. The _action tag is used to include the content of another resource, it may be jsp, html or servlet.

- a. Jsp:include

- b. Jsp:forward
- c. jsp:useBean
- d. Jsp:fallback

71. Java Objects can be represented as a sequence of bytes known as

- a. InputStream
- b. OutputStream
- c. Serialization
- d. BinaryStream

72. Which one is the right method for writing various data types of ObjectOutputStream class?

- a. writeObject(Object x)
- b. write(Object x)
- c. writeObject()
- d. write()

73. Give Syntax of jsp:useBean action tag

- a. `<jsp:useBean id= "instanceName" scope= "page | request | session |application" />`
- b. `<jsp:useBean name="instanceOfBean" property= "*" | />`
- c. `<jsp:useBean name="obj" property="xyz" />`
- d. `<jsp:useBean type= "applet | bean" code= "nameOfClassFile" codebase= "directoryNameOfClassFile" />+`

74. JSP Implicit Object 'Out' is object of javax.servlet.jsp._____class

- a.** jspWriter
- b.** jspPrinter

- c. jspWrite
- d. jspPrint

Unit 3

75. Which technology can be used at View Layer in Struts?
- a. J2EE
 - b. HTML
 - c. XML/XSLT
 - d. JavaScrip
76. In which configuration file is a link between the View and Model components in the Web Client but you would not have to touch these settings for 99.99% of your projects?
- a. The struts-config.xml file
 - b. The struts.xml file
 - c. The web.xml file
 - d. The struts.properties file
77. ActionServlet, RequestProcessor and Action classes are the components of
- a. View
 - b. Model
 - c. Controller
 - d. Deployment
78. In Which technology Struts 2 provides various types of tags such as UI tags, Data tags, control tags etc. to ease the development of struts 2 application?
- a. Various Result support
 - b. Integration Support
 - c. Various Tag support
 - d. Theme and Template support
79. Struts supports which of these model components?
- a. javaBeans
 - b. EJB
 - c. CORBA
 - d. JDO
 - e. All of these
80. What does validate() method of ActionForm returns?
- a. ActionErrors
 - b. ActionForward
 - c. ActionMapping

- d. `ActionError`
81. Which is used to make asynchronous request i.e. it doesn't block the user and it sends only required field data to the server side not all, So it makes the performance fast?
- a. `AJAX Support`
 - b. `Integration Support`
 - c. `Various Tag Support`
 - d. `Theme and Template Support`
82. Which type of validation we must implement the `Validateable` interface (or extend `ActionSupport` class) and provide the implementation of `validate` method?
- a. `By Input Validation`
 - b. `By Ajax Validation`
 - c. `By Custom Validation`
 - d. `None of the above`
83. Which of the following delegates the request handling to the `RequestProcessor` instance?
- a. `ActionServlet`
 - b. `Action class`
 - c. `Deployment descriptor`
 - d. `None of the above`
84. What is the role of `ActionContextCleanUp` class in struts 2?
- a. `Handles special clean up task when filters need access to an initialized struts framework`
 - b. `Works like garbage collector in java`
 - c. `All of these`
 - d. `None`
85. Which of the following methods is overridden by `Action` class?
- a. `run()`
 - b. `destroy()`
 - c. `execute()`
 - d. `service()`
86. `reset()` method signature in `ActionForm`?
- a. `public void reset(ActionMapping mapping, HttpServletRequest request)`
 - b. `public ActionErrors reset(ActionMapping mapping, HttpServletRequest request)`
 - c. `public ActionError reset(ActionMapping mapping, HttpServletRequest request)`
 - d. `None of the above`
87. Which of the following tag is used to render a `\\n` text message?
- a. `set tag`
 - b. `text tag`
 - c. `url tag`
 - d. `push tag`
88. The Struts Framework is a standard for developing well-architected Web applications, it has the following features?
- a. `Open Source`
 - b. `Model View Controller`

- c. Implement the JSP Model 2 Architecture
 - d. All mentioned above
89. Abbreviate the term OGNL?
- a. Object-Goal Navigation Language
 - b. Object- Graph Navigation Language
 - c. Oriented-Graph Navigation Language
 - d. None of the above
90. Which method is necessary for Action class?
- a. valuator()
 - b. reset()
 - c. findForward()
 - d. execute()
91. In interceptor which is used to display the intermediate result?
- a. Params Interceptor
 - b. Custom Interceptor
 - c. ExecAndWait Interceptor
 - d. Prepare Interceptor
92. Which of the following tags in struts-config.xml file defines the availability of necessary Struts JSP custom tag libraries?
- a. jsp-lib
 - b. struts-taglib
 - c. taglib
 - d. jsp-taglib
93. In Struts, how can we access Java beans and their properties?
- a. Row Library
 - b. Tag Library
 - c. Column Library
 - d. Table Library
94. Struts combines which of these in to a unified Framework?
- a. Java Servlets
 - b. Java Server pages
 - c. Custom tags and Message Resources
 - d. All of the above
95. ActionServlet, RequestProcessor and Action classes are the components of
- a. View
 - b. Model
 - c. Controller
 - d. Deployment
96. In the Action interface which constant indicates that action execution is successful but no result should be shown to the user?
- a. Success

- b. Login
- c. Input
- d. None

97. JSON name/value pair is written as
- a. name : 'value'
 - b. name = 'value'
 - c. name = "value"
 - d. "name" : "value"
98. JSON strings have to be in
- a. single quote
 - b. double quote
 - c. single quote or double quote
99. In the below notation, Employee is of type { "Employee": ["Amy", "Bob", "John"] }
- a. Not a valid JSON string
 - b. Array
 - c. Class
 - d. Object
100. Which of the following is not a JSON type?
- a. Object
 - b. date
 - c. Array
 - d. string
101. Which of these is correct about the JSON standard?
- a. It is an open standard
 - b. It is privately developed
 - c. It requires a license to use
102. What is the file extension of JSON?
- a. .jn
 - b. .js
 - c. .json
 - d. .json
103. In modern websites what is the common usage for JSON?
- a. To store information remotely.
 - b. To send and receive bits of data.
 - c. To store information locally.
104. Which of the following code will return a valid JSON object?
- a. `JSON.parse('({ "FirstName": "John", "LastName": "Doe" })')`
 - b. `JSON.parse('{ "FirstName": "John", "LastName": "Doe" })')`
 - c. `JSON.parse('({ "FirstName": "John", "LastName": "Doe" })')`
 - d. `JSON.parse('{ "FirstName": "John", "LastName": "Doe" })')`
105. Which of these is proper a JSON array?
- a. { "letters" : ["a", "b", "c";] }
 - b. { 'letters' : { "a", "b", "c" } }
 - c. { "letters" : [a, b, c] }
 - d. { "letters" : ["a", "b", "c"] }
106. In the below notation, Employee is of type { "Employee": { "Name": "Amy", "Age": 25 } }
- a. Object
 - b. Array
 - c. Class
 - d. Not a valid JSON string
107. Which answer represents the following order of TYPES? Object, String, Boolean, Number
- a. { } , "a string" , "false" , "0"
 - b. [], 0 , "true" , "0"
 - c. { } , "0" , false , 0
 - d. { } , hello , "false" , "0"
108. In this example, what is the TYPE of employee?
- ```
{ "employee" : { "type" : "Director", "functions" : ['sales', 'marketing'] } }
```
- a. String

- b. Director
  - c. type
  - d. Object.
109. Given this JSON example:  
`{ "Employee": { "Name": "Amy", "Age": 25 } }`; What is the type of Employee.Age ?
- a. Number
  - b. Object
  - c. Array
  - d. String
110. Which of these is a benefit JSON has over XML?
- a. JSON is more forgiving of poor formatting
  - b. JSON has less markup requirements and therefore is lighter than XML
  - c. JSON can be written poorly and still be parsed
  - d. JSON does not need to be stored in a file to be sent remotely
111. Which statement about the replacer parameter in `JSON.stringify()` is true?
- a. If null or omitted, all properties of the object are included in the resulting JSON string
  - b. If a function, transforms values and properties encountered while stringifying
  - c. All three statements are true
  - d. If an array, specifies the names of the properties in the object to include in the resulting JSON string
112. What does JSON stand for?
- a. JavaScript Object Nomenclature
  - b. JavaScript Objective Notation
  - c. JavaScript Object Notation
  - d. JavaScript Orientated Nomenclature
113. JSON elements are separated by
- a. semi-colon
  - b. line break
  - c. comma
  - d. white space
114. What keywords are reserved in JSON and cannot be used as keys?
- a. Value
  - b. Object
  - c. There are none.
  - d. Key
115. Which of the following is a valid JSON string?
- a. `{ "meals" : { "breakfast", "lunch", "dinner" } }`
  - b. `{ "meals" : [ "breakfast", "lunch", "dinner" ] }`
  - c. `[ "meals" : { "breakfast", "lunch", "dinner" } ]`
  - d. `[ { "meals" : { "breakfast", "lunch", "dinner" } } ]`
116. Which of the following code will throw an error?
- a. `JSON.parse(null);`
  - b. `JSON.parse('{}');`
  - c. `JSON.parse(undefined);`
  - d. `JSON.parse('');`
117. Which statement about the `toJSON` method is true?
- a. It customizes JSON stringification behavior
  - b. It allows an object to determine its own JSON representation
  - c. All three statements are true
  - d. It is internally called by `JSON.stringify()`
118. Which of these data interchange formats has seen a decline in usage in favor of JSON?
- a. ASCII
  - b. Plain-text
  - c. SQL
  - d. XML
119. Which is true about JSON namespaces?
- a. JSON namespaces can be accessed immediately after receiving data.
  - b. JSON namespaces can be accessed after parsing data
  - c. JSON doesn't have namespaces. Though every object is inherently a namespace.

120. What kind of format is JSON, and what does the acronym mean?
- A lightweight data-encoding framework. Java Omnipresent Notation.
  - A lightweight data-interchange format. JavaScript Object Notation.
  - A lightweight data-interchange format. Java Objective Notion.
  - A lightweight database framework. JavaScript Object Notation.
121. Can you use a double quote inside a JSON string?
- Yes, if you use the ascii code.
  - Yes, you can use it without any special treatment
  - Yes, if it is escaped like ( \ )
  - No, you should use single quotes
122. In this example, what is the TYPE of employee.functions?  
{ "employee" : { "type" : "Director", "functions" : [ 'sales', 'marketing' ] } }
- String
  - Object
  - Array
  - Sales, Marketing
123. Which statement about the reviver parameter in JSON.parse() is true?
- All three statements are true
  - Used to reform generic objects into instances of pseudo-classes
  - A function that will be called for every key and value at every level of the final result
  - Each value will be replaced by the result of the reviver function
124. What function will convert a JavaScript object to a JSON string?
- JSON.text()
  - JSON.serialize()
  - JSON.toString()
  - JSON.stringify()
125. In this example, what would the VALUE of employee.functions[1] be?  
{ "employee" : { "type" : "Director", "functions" : [ 'sales', 'marketing' ] } }
- null
  - undefined
  - marketing
  - sales
126. What is the MIME type of JSON?
- application/x-json
  - text/json
  - application/json
  - application/javascript
127. In this example, what is the VALUE of employee.type?  
{ "employee" : { "type" : "Director", "functions" : [ 'sales', 'marketing' ] } }
- String
  - Object
  - Director
128. In this example, what would the TYPE of employee.hireDate be?  
{ "employee" : { "type" : "Director", "functions" : [ 'sales', 'marketing' ], "hireDate" : "March 8, 2011" } }
- March 8, 2011
  - String
  - Date
  - Number
129. What is JSONP meant to mitigate?
- Size constraints of JSON
  - Cross-domain communication
  - Future proofing JSON as JavaScript changes.
130. Which of these is supported as a JSON Value type?
- Infiniti
  - Null
  - Undefined
  - NaN
130. When coding a string object in JSON, what must separate the string and the value?

- a. A space
- b. A semicolon
- c. A comma
- d. A colon.

131. Does JSON support Unicode characters?

- a. No, JSON has no support for any kind of character encoding.
- b. No, JSON only has support for UTF-8 characters.
- c. Yes, JSON has support for Unicode characters. Allowing for almost any information in any human language
- d. Yes, only when stored as the key in a ( key : value ) pair.

132. What is the value of obj in the following code?

```
var obj = JSON.parse('{ "fruit": "Apple" }', function(k, v) { if (v == "Apple") return "Orange" else return v; });
```

- a. { "fruit" : "Apple" }
- b. { "fruit" : "Orange" }
- c. { "Orange" }
- d. { "Apple" }

133. In what situation would you want to use XML over JSON?

- a. When JSON is not offered.
- b. When you need to use tags to structure your content.
- c. You need message validation or you're using XSLT.
- d. Never, JSON is worlds better.

134. What is a JSONStringer used for?

- a. It is used to quickly create JSON text.
- b. It quickly converts JSON to Java strings
- c. It is used to create number strings in JSON.
- d. It is used to create JSON ordered pairs.