

## Exercise 2 (30 Questions)

1. Which of the following Java technologies is better to deliver the static HTML content?  
  
(a) Java servlet technology    (b) Java JSP technology
2. The Java JSP technology is a completely new technology with respect to the Java servlet technology.  
  
(a) true    (b) false
3. Since a JSP file is derived from an HTML file, there is no need to compile the JSP file to make it useful in general.  
  
(a) true    (b) false
4. Is a JSP file qualified to be a welcome file?  
  
(a) yes    (b) no
5. Is it a good practice way to put a lot of Java code inside a JSP file?  
  
(a) yes    (b) no
6. In a Java web application, if we want to do a lot of data processing work, which of the following types of files should be used?  
  
(a) servlet    (b) JSP
7. If an HTML form does not have the `action` attribute, then this form cannot be submitted to any processing file.  
  
(a) true    (b) false
8. In order to *forward* a request to another resource in the web application, which of the following objects should be used *directly*?  
  
(a) `HttpServletRequest`    (b) `HttpServletResponse`  
(c) `RequestDispatcher`    (d) `PrintWriter`

9. When you store some data in the **request** scope in a servlet, which of the following pages can access it?
- (a) a *forwarded* JSP page from the servlet
  - (b) a *redirected* JSP page from the servlet
10. Which of the following objects is used to *redirect* the request to another URL?
- (a) `HttpServletRequest`   (b) `HttpServletResponse`   (c) `RequestDispatcher`
11. At what time is a JSP directive processed?
- (a) at page translation time   (b) at compile time   (c) at runtime
12. Which of the following Java expressions can be replaced by the JSP expressions?
- (a) `System.out.println()`   (b) `out.println()`   (c) `writer.println()`
13. All the variables declared in JSP scriptlets are *class variables*.
- (a) true   (b) false
14. All the JSP elements of a JSP, such as JSP directives, JSP declarations, JSP scriptlets, JSP expressions, are all copied into the `_jspService` method in the translated servlet class.
- (a) true   (b) false
15. After a JSP file is translated into a Java servlet and gets compiled, when it is executed, the servlet's **service** method is called inside the `_jspService` method.
- (a) true   (b) false
16. In a Java web application, if you can *redirect* a request to certain URL in a servlet, then you can also *forward* the current request to the same URL.
- (a) true   (b) false
17. The code inside a JSP *declaration* will be copied into the `_jspService()` method of the JSP servlet class after the translation.
- (a) true   (b) false

18. When you send multiple values under the *same parameter name* to a servlet, which of the following statements is true?
- (a) Only the first value can be retrieved in the servlet.
  - (b) Only the last value can be retrieved in the servlet.
  - (c) None of the values can be retrieved in the servlet.
  - (d) All the values can be retrieved in the servlet.
19. In which of the following JSP elements, the JSP implicit objects cannot be used?
- (a) JSP scriptlets    (b) JSP expressions    (c) JSP declarations
20. Which of the following types of URLs can be used to *redirect* the request by the `sendRedirect` method of the `HttpServletResponse` object?
- (a) any URL
  - (b) only URLs of resources in the same web application
  - (c) only URLs of resources in the same web server
21. Which of the following is responsible for translating the JSP code into a Java servlet?
- (a) web browser    (b) Apache HTTP server    (c) web container
  - (d) Java programmers    (e) system administrators
22. If you place a JSP inside the folder `WEB-INF/jsp`, you can *redirect* a request to this page.
- (a) true    (b) false
23. In order to create a `RequestDispatcher` object in a servlet to forward a request, we need to use a constructor of `RequestDispatcher` to get the job done.
- (a) true    (b) false
24. In a servlet, if you retrieve a parameter value and find that the `String` object is `null`, it means that the user does not provide any value to the parameter.
- (a) true    (b) false
25. Which of the following scopes is used by the JSP implicit variables?
- (a) class scope    (b) method scope    (c) block scope

26. Which of the following is NOT a JSP *directive*?
- (a) page (b) include (c) forward (d) taglib
27. In a JSP file, you have *two* JSP scriptlets. If you define a local variable in the first scriptlet, you can still use it in the second scriptlet. Assume that the location of the second scriptlet is after the first scriptlet.
- (a) true (b) false
28. Which of the following ways of using JSP implicit objects is legal?
- (a) `<%! String name = (String) request.getAttribute("username"); %>`  
(b) `<% request.sendRedirect("mypage.jsp"); %>`  
(c) `<%= response.getAttribute("number") %>`  
(d) `<%= request.getParameter("chap-sec") %>`
29. Suppose that you have a JSP at the location `WEB-INF/jsp/mypage.jsp` under the context root, which is the current JSP. Now you want to *forward* the current request to another JSP at the location `jsp/display.jsp` under the context root. What path should you use in forwarding?

**Ans:**

30. Suppose that you have a JSP at the location `WEB-INF/jsp/mypage.jsp` under the context root. If you *forward* the current request to this page in a servlet whose URL pattern has the form `/xxx/yyy`, what path should you use for this JSP?

**Ans:**