

B.TECH/IT/6TH SEM/INFO 3203/2017
ADVANCE JAVA AND WEB TECHNOLOGY
(INFO 3203)

Time Allotted : 3 hrs

Full Marks : 70

Figures out of the right margin indicate full marks.

*Candidates are required to answer Group A and
any 5 (five) from Group B to E, taking at least one from each group.*

*Candidates are required to give answer in their own words as far as
practicable.*

Group – A

(Multiple Choice Type Questions)

1. Choose the correct alternative for the following: **10 × 1 = 10**
- (i) Web pages can be of
(a) 3 types (b) 2 types (c) 4 types (d) none of these.
- (ii) `<table style="font: 12 pt Arial; color: green; font-weight: bold">`
`<tr><td>Name</td><td>Reg No. </td></tr>`
`<tr><td>XXXX</td><td>55555</td></tr>`
`</table>`
Above mentioned html code contain _____ style sheet.
(a) embedded (b) inline (c) external (d) none of these.
- (iii) onLoad, onKeyPress are examples of
(a) validation (b) checks (c) events (d) all of these.
- (iv) DOM stands for
(a) Dormant Object Model (b) Decide Object Model
(c) Daily Object Model (d) Document Object Model.
- (v) DTD concept available in
(a) HTML (b) DHTML (c) XML (d) all of these.
- (vi) J2EE does not include
(a) EJB (b) CORBA (c) Servlet (d) JSP.
- (vii) Type 3 JDBC driver
(a) calls directly into the native protocol
(b) calls vendor specific API functions
(c) is single threaded JDBC driver
(d) uses a network protocol to a middleware server.

- (viii) Cookies are stored in
 (a) Web Server (b) Web Browser
 (c) Application Server (d) Database server.
- (ix) What does CSS stand for?
 (a) computer style sheet (b) cascading style sheet
 (c) colourful style sheet (d) none of these.
- (x) Persistent object belongs to
 (a) Session Beans (b) Entity Beans
 (c) Message Driven Beans (d) Stateful session bean.

Group – B

2. (a) What is an Applet? Describe Applet life cycle with diagram.
 (b) What is the difference between static and dynamic web pages? What is URL and how does it differ from URI? State the advantages of Java Swing over Abstract Windowing Toolkit.

$$(2 + 4) + (2 + 2 + 2) = 12$$

3. (a) What are the differences between GET and POST methods? What is Port No of HTTP? Why we need to have a dynamic web page?
 (b) Create a Web Page using HTML containing image, hyperlink, table, frameset, username, and password fields.

$$(3 + 1 + 2) + 6 = 12$$

Group – C

4. (a) What is cookie? Create a cookie using servlet to store and display login information like username and password as entered by the user.
 (b) Give an example where CSS and Java Script are used together. How arrays are handled in Java Script?

$$(2 + 4) + (4 + 2) = 12$$

5. (a) What is a Servlet? Draw and discuss the life cycle of a Servlet. Why do we have to track session?
 (b) Using Servlet calculate the area and circumference of a circle. The user enters the radius of a circle and clicks button "Calculate".

$$(2 + 2 + 2) + 6 = 12$$

Group – D

6. (a) Compare ASP and JSP. Draw and describe the lifecycle of JSP.
 (b) Write a JSP program to store the name, age, id of employees of an organization in a database and to retrieve any particular record by a particular id.

$$(2 + 4) + 6 = 12$$

7. (a) How does JSP help in MVC architecture? What are the implicit JSP objects? What is the purpose of declaration element in a JSP and how do we use them? Discuss page and include directives in brief.
 (b) How do <jsp:include/> and <jsp:forward/> actions differ from each other? What is the rule of using a <jsp:useBean/> tag?

$$(2 + 2 + 2 + 2) + (2 + 2) = 12$$

Group – E

8. (a) What are the basic differences of EJB and Java Bean? Can all application servers run EJB? How many types of EJB are there?
 (b) What is the goal of RMI and how does it differ from RPC? How can we develop a simple RMI program? What do you mean by Stub and Skeleton?

$$(2 + 2 + 2) + (2 + 2 + 2) = 12$$

9. (a) What is JNI's full form and what purpose does it serve? Describe in brief how to develop a simple JNI program?
 (b) What is XML and why is it used? What is DTD? What are the basic elements of an XML structure?

$$(3 + 3) + (2 + 2 + 2) = 12$$