



# **JEPPIAAR ENGINEERING COLLEGE**

**DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING**

**CS6501**

**INTERNET PROGRAMMING**

## **Question Bank**

**III YEAR A & B / BATCH : 2016 -20**

## Vision of Institution

To build Jeppiaar Engineering College as an Institution of Academic Excellence in Technical education and Management education and to become a World Class University.

## Mission of Institution

<b>M1</b>	To excel in teaching and <b>learning, research and innovation</b> by promoting the principles of scientific analysis and creative thinking
<b>M2</b>	To participate in the production, <b>development and dissemination of knowledge</b> and interact with <b>national and international communities</b>
<b>M3</b>	To equip students with <b>values, ethics and life skills</b> needed to enrich their lives and enable them to meaningfully contribute to the <b>progress of society</b>
<b>M4</b>	To prepare students <b>for higher studies and lifelong learning</b> , enrich them with the <b>practical and entrepreneurial skills</b> necessary to excel as future professionals and contribute to <b>Nation's economy</b>

## Program Outcomes (POs)

<b>PO1</b>	<b>Engineering knowledge:</b> Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.
<b>PO2</b>	<b>Problem analysis:</b> Identify, formulate, review research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.
<b>PO3</b>	<b>Design/development of solutions:</b> Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations
<b>PO4</b>	<b>Conduct investigations of complex problems:</b> Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.
<b>PO5</b>	<b>Modern tool usage:</b> Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modeling to complex engineering activities with an understanding of the limitations.
<b>PO6</b>	<b>The engineer and society:</b> Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.
<b>PO7</b>	<b>Environment and sustainability:</b> Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.

<b>PO8</b>	<b>Ethics:</b> Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.
<b>PO9</b>	<b>Individual and team work:</b> Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.
<b>PO10</b>	<b>Communication:</b> Communicate effectively on complex engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.
<b>PO11</b>	<b>Project management and finance:</b> Demonstrate knowledge and understanding of the engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.
<b>PO12</b>	<b>Life-long learning:</b> Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.

### **Vision of Department**

To emerge as a globally prominent department, developing ethical computer professionals, innovators and entrepreneurs with academic excellence through quality education and research.

### **Mission of Department**

<b>M1</b>	To create <b>computer professionals</b> with an ability to identify and <b>formulate the engineering problems</b> and also to provide <b>innovative solutions</b> through <b>effective teaching learning process</b> .
<b>M2</b>	To <b>strengthen the core-competence</b> in computer science and engineering and to create an ability to <b>interact</b> effectively with industries.
<b>M3</b>	To produce engineers with good professional skills, <b>ethical values</b> and life skills for the <b>betterment of the society</b> .
<b>M4</b>	To encourage students towards <b>continuous and higher level learning</b> on technological advancements and provide a platform for <b>employment and self-employment</b> .

### **Program Educational Objectives (PEOs)**

<b>PEO1</b>	To address the real time complex engineering problems using innovative approach with strong core computing skills.
<b>PEO2</b>	To apply core-analytical knowledge and appropriate techniques and provide solutions to real time challenges of national and global society
<b>PEO3</b>	Apply ethical knowledge for professional excellence and leadership for the betterment of the society.

<b>PEO4</b>	<b>Develop life-long learning skills needed for better employment and entrepreneurship</b>
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### **Program Specific Outcomes (PSOs)**

Students will be able to

<b>PSO1</b>	An ability to understand the core concepts of computer science and engineering and to enrich problem solving skills to analyze, design and implement software and hardware based systems of varying complexity.
<b>PSO2</b>	To interpret real-time problems with analytical skills and to arrive at cost effective and optimal solution using advanced tools and techniques.
<b>PSO3</b>	An understanding of social awareness and professional ethics with practical proficiency in the broad area of programming concepts by lifelong learning to inculcate employment and entrepreneurship skills.

### **BLOOM TAXANOMY LEVELS(BTL)**

- BTL6: Creating.,**
- BTL 5: Evaluating.,**
- BTL 4: Analyzing.,**
- BTL 3: Applying.,**
- BTL 2: Understanding.,**
- BTL 1: Remembering**

## SYLLABUS

### **UNIT I- JAVA Programming**

An overview of Java – Data Types – Variables and Arrays – Operators – Control Statements –Classes – Objects – Methods – Inheritance - Packages – Abstract classes – Interfaces and Inner classes – Exception handling - Introduction to Threads – Multithreading – String handling – Streams and I/O – Applets.

### **UNIT-II - WEBSITES BASICS, HTML 5, CSS 3, WEB 2.0 8**

Web 2.0: Basics-RIA Rich Internet Applications - Collaborations tools - Understanding websites and web servers: Understanding Internet – Difference between websites and web server- Internet technologies Overview –Understanding the difference between internet and intranet; HTML and CSS: HTML 5.0 , XHTML, CSS 3.

### **UNIT III - CLIENT SIDE AND SERVER SIDE PROGRAMMING**

Java Script: An introduction to JavaScript–JavaScript DOM Model-Date and Objects,-Regular Expressions- Exception Handling-Validation-Built-in objects-Event Handling- DHTML with JavaScript. Servlets: Java Servlet Architecture- Servlet Life Cycle- Form GET and POST actions- Session Handling- Understanding Cookies- Installing and Configuring Apache Tomcat Web Server;- DATABASE CONNECTIVITY: JDBC perspectives, JDBC program example - JSP: Understanding Java Server Pages-JSP Standard Tag Library(JSTL)-Creating HTML forms by embedding JSP code.

### **UNIT IV - PHP and XML**

An introduction to PHP: PHP- Using PHP- Variables- Program control- Built-in functions-Connecting to Database – Using Cookies-Regular Expressions; XML: Basic XML- Document Type Definition XML Schema DOM and Presenting XML, XML Parsers and Validation, XSL and XSLT Transformation, News Feed (RSS and ATOM).

### **UNIT V - INTRODUCTION TO AJAX and WEB SERVICES**

AJAX: Ajax Client Server Architecture-XML Http Request Object-Call Back Methods; Web Services: Introduction- Java web services Basics – Creating, Publishing, Testing and Describing a Web services (WSDL)-Consuming a web service, Database Driven web service from an application – SOAP.

L: 45, T: 15, Total = 60 Periods

### **Books Referred:**

### **TEXT BOOKS:**

1. Deitel and Deitel and Nieto, “Internet and World Wide Web - How to Program”, Prentice Hall, 5<sup>th</sup> Edition, 2011.

2. Herbert Schildt, “Java-The Complete Reference”, Eighth Edition, Mc Graw Hill Professional, 2011

## REFERENCES:

- R1. Stephen Wynkoop and John Burke “Running a Perfect Website”, QUE, 2<sup>nd</sup> Edition, 1999.
- R2. Chris Bates, Web Programming – Building Intranet Applications, 3rd Edition, Wiley Publications, 2009.
- R3. Jeffrey C and Jackson, “Web Technologies A Computer Science Perspective”, Pearson Education, 2011.
- R4. Gopalan N.P. and Akilandeswari J., “Web Technology”, Prentice Hall of India, 2011.
- R5. Paul Dietel and Harvey Deitel, “Java How to Program”, , 8th Edition Prentice Hall of India.
- R6. Mahesh P. Matha, “Core Java A Comprehensive Study”, Prentice Hall of India, 2011.
- R7. Uttam K.Roy, “Web Technologies”, Oxford University Press, 2011.

## Course Outcomes (COs)

C502.1	stand java concepts
C502.2	basic website using HTML and cascading style sheets
C502.3	use of Java scripting for Client side programming and Compare and contrast with server side programming
C502.4	strate simple web page in PHP, and to present data in XML format
C502.5	et java specific web services architecture

## INDEX

<b>Unit #</b>	<b>Ref. Book</b>	<b>Page Numbers</b>
Unit 1	Deitel and Deitel and Nieto, “Internet and World Wide Web - How to Program”, Prentice Hall, 5 <sup>th</sup> Edition, 2011. Paul Dietel and Harvey Deitel, “Java How to Program”, 8th Edition Prentice Hall of India.	<b>Page 1 -5</b>
Unit 2	<b>R1.</b> Stephen Wynkoop and John Burke “Running a Perfect Website”, QUE, 2 <sup>nd</sup> Edition, 1999. <b>R2.</b> Chris Bates, Web Programming – Building Intranet Applications, 3rd Edition, Wiley Publications, 2009.	<b>Page 6 - 9</b>
Unit 3	<b>R2.</b> Chris Bates, Web Programming – Building Intranet Applications, 3rd Edition, Wiley Publications, 2009. <b>R3.</b> Jeffrey C and Jackson, “Web Technologies A Computer Science Perspective”, Pearson Education, 2011.	<b>Page 10 -14</b>
Unit 4	<b>R2.</b> Chris Bates, Web Programming – Building Intranet Applications, 3rd Edition, Wiley Publications, 2009. <b>R3.</b> Jeffrey C and Jackson, “Web Technologies A Computer Science Perspective”, Pearson Education, 2011.	<b>Page 15 -18</b>
Unit 5	<b>R2.</b> Chris Bates, Web Programming – Building Intranet Applications, 3rd Edition, Wiley Publications, 2009.	<b>Page 19 -23</b>

	<b>R3.</b> Jeffrey C and Jackson, “Web Technologies A Computer Science Perspective”, Pearson Education, 2011.	
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## UNIT – 1

### UNIT I- JAVA Programming

An overview of Java – Data Types – Variables and Arrays – Operators – Control Statements –Classes – Objects – Methods – Inheritance - Packages – Abstract classes – Interfaces and Inner classes – Exception handling - Introduction to Threads – Multithreading – String handling – Streams and I/O – Applets.

S. No.	Question	Course Outcome	Blooms Taxonomy Level
1	<b>What is meant by Object Oriented Programming?</b> OOP is a method of programming in which programs are organized as cooperative collections of objects. Each object is an instance of a class and each class belong to a hierarchy.	C502.1	BTL 1
2	<b>What is a Class?</b> Class is a template for a set of objects that share a common structure and a common behavior.	C502.1	BTL 1
3	<b>What is an Object?</b> Object is an instance of a class. It has state, behaviour and identity. It is also called as an instance of a class.	C502.1	BTL 1
4	<b>What is an Instance?</b> An instance has state, behaviour and identity. The structure and behaviour of similar classes are defined in their common class. An instance is also called as an object.	C502.1	BTL 1
5	<b>What are the core OOP’s concepts?</b> Abstraction, Encapsulation, Inheritance and Polymorphism are the core OOP’s concepts.	C502.1	BTL 1
6	<b>What is meant by abstraction?</b> Abstraction defines the essential characteristics of an object that distinguish it from all other kinds of objects.	C502.1	BTL 1



7	<p><b>What is meant by Encapsulation?</b> Encapsulation is the process of compartmentalising the elements of an abstraction that defines the structure and behavior. Encapsulation helps to separate the contractual interface of an abstraction and implementation.</p>	C502.1	BTL 1
8	<p><b>What are different types of access modifiers (Access specifiers)?</b> Access specifiers are keywords that determine the type of access to the member of a <b>class</b>. These keywords are for allowing privileges to parts of a program such as functions and variables. These are: <b>public:</b> Any thing declared as public can be accessed from anywhere. <b>Private:</b> Any thing declared as private can't be seen outside of its class. <b>Protected:</b> Any thing declared as protected can be accessed by classes in the same package and subclasses in the other packages. <b>Default modifier:</b> Can be accessed only to classes in the same package.</p>	C502.1	BTL 1
9	<p><b>Explain the usage of Java packages. [ APR / MAY 2017]</b> This is a way to organize files when a project consists of multiple modules. It also helps resolve naming conflicts when different packages have classes with the same names. Packages access level also allows protecting data from being used by the non-authorized classes.</p>	C502.1	BTL 1
10	<p><b>What is method overloading and method overriding? [MAY/JUN 2016] [ NOV/DEC 2015]</b> Method overloading: When a method in a class having the same method name with different arguments is said to be method overloading. Method overriding: When a method in a class having the same method name with same arguments is said to be method overriding.</p>	C502.1	BTL 1
11	<p><b>What gives java it's "write once and run anywhere" nature? [ NOV/DEC 2015]</b> All Java programs are compiled into class files that contain bytecodes. These byte codes can be run in any platform and hence java is said to be platform independent.</p>	C502.1	BTL 1

12	<p><b>What is a constructor? What is a destructor? [NOV / DEC 2016]</b></p> <p>Constructor is an operation that creates an object and/or initializes its state. Destructor is an operation that frees the state of an object and/or destroys the object itself. In Java, there is no concept of destructors. Its taken care by the JVM.</p>	C502.1	BTL 1
13	<p><b>What is finalize () method?</b></p> <p>Finalize () method is used just before an object is destroyed and can be called just prior to garbage collection.</p>	C502.1	BTL 1
14	<p><b>What is the difference between String and String Buffer?</b></p> <p>String objects are constants and immutable whereas String Buffer objects are not. String class supports constant strings whereas String Buffer class supports growable and modifiable strings.</p>	C502.1	BTL 1
15	<p><b>What is a package?</b></p> <p>A package is a collection of classes and interfaces that provides a high-level layer of access protection and name space management.</p>	C502.1	BTL 1
16	<p><b>Explain working of Java Virtual Machine (JVM)?</b></p> <p>JVM is an abstract computing machine like any other real computing machine which first converts .java file into .class file by using Compiler (.class is nothing but byte code file.) and Interpreter reads byte codes.</p>	C502.1	BTL 1
17	<p><b>What is meant by Binding, Static binding, Dynamic binding?</b></p> <p><i>Binding:</i> Binding denotes association of a name with a class.</p> <p><i>Static binding:</i> Static binding is a binding in which the class association is made during compile time. This is also called as <i>Early</i> binding.</p> <p><i>Dynamic binding:</i> Dynamic binding is a binding in which the class association is not made until the object is created at execution time. It is also called as <i>Late</i> binding.</p>	C502.1	BTL 1
18	<p><b>Differentiate between a Class and an Object?</b></p> <p>The Object class is the highest-level class in the Java class hierarchy. The Class is used to represent the classes and interfaces that are loaded by a Java program. The Class class is used to obtain information about an object's design. A Class is only a definition or</p>	C502.1	BTL 1

	<p>prototype of real life object. Whereas an object is an instance or living representation of real life object. Every object belongs to a class and every class contains one or more related objects.</p>		
19	<p><b>What is meant by Polymorphism?</b> Polymorphism literally means taking more than one form. Polymorphism is a characteristic of being able to assign a different behavior or value in a subclass, to something that was declared in a parent class.</p>	C502.1	BTL 1
20	<p><b>Define Dynamic Binding?</b> Binding refers to the linking of a procedure call to the code to be executed in response to the call. Dynamic binding (also known as late binding) means that the code associated with a given procedure call is not known until the time of the call at run-time. It is associated with polymorphism and inheritance.</p>	C502.1	BTL 1
21	<p><b>What is an Abstract Class? [ NOV/DEC 2017] [ NOV/DEC 2015]</b> Abstract class is a class that has no instances. An abstract class is written with the expectation that its concrete subclasses will add to its structure and behaviour, typically by implementing its abstract operations.</p>	C502.1	BTL 1
22	<p><b>What is an Interface?</b> Interface is an outside view of a class or object which emphasizes its abstraction while hiding its structure and secrets of its behavior.</p>	C502.1	BTL 1
23	<p><b>What is an exception?</b> An exception is an event, which occurs during the execution of a program that disrupts the normal flow of the program's instructions.</p>	C502.1	BTL 1
24	<p><b>What is garbage collection? What is the process that is responsible for doing that in java?</b> Reclaiming the unused memory by the invalid objects. Garbage collector is responsible for this process</p>	C502.1	BTL 1
25	<p><b>What is the difference between process and thread? [ NOV/DEC 2016]</b> Process is a program in execution whereas thread is a separate path of execution in a program.</p>	C502.1	BTL 1

26	<p><b>A Thread is runnable, how does that work? [NOV / DEC 2016]</b></p> <p>The <b>Thread</b> class' <b>run</b> method normally invokes the <b>run</b> method of the <b>Runnable</b> type it is passed in its constructor. However, it is possible to override the thread's <b>run</b> method with the own.</p>	C502.1	BTL 1
27	<p><b>List the two methods to search a string.</b></p> <ol style="list-style-type: none"> <li>1. indexOf()</li> <li>2. lastIndexOf()</li> </ol>	C502.1	BTL 1
28	<p><b>What is the use of getBytes() Method?</b></p> <p>This method has following two forms:</p> <p><b>getBytes(String charsetName):</b> Encodes this String into a sequence of bytes using the named charset, storing the result into a new byte array.</p> <p><b>getBytes():</b> Encodes this String into a sequence of bytes using the platform's default charset, storing the result into a new byte array.</p>	C502.1	BTL 1
29	<p><b>What is a thread group?</b></p> <p>A thread group is a data structure that controls the state of collection of thread as a whole managed by the particular runtime environment.</p>	C502.1	BTL 1
30	<p><b>What is serialization?</b></p> <p>Serialization is the process of writing complete state of java object into output stream, that stream can be file or byte array or stream associated with TCP/IP socket.</p>	C502.1	BTL 1
31	<p><b>Give the different types of typecasting in Java with example. [NOV / DEC 2016]</b></p> <p>If the data <b>types</b> are compatible, then <b>Java</b> will perform the <b>conversion</b> automatically known as <b>Automatic Type Conversion</b> and if not then they need to be casted or converted explicitly. For <b>example</b>, assigning an int value to a long variable.</p>	C502.1	BTL 1
32	<p><b>Give an example for a chained exception in Java. [MAY/JUN 2016]</b></p> <p>consider a situation in which a method throws an ArithmeticException because of an attempt to divide by zero but the actual cause of exception was an I/O error which caused the divisor to be zero. The method will throw only ArithmeticException to the caller.</p>	C502.1	BTL 1
<b><u>PART B</u></b>			

1	Explain in detail about Multi-threading? [ <b>NOV/DEC 2015</b> ]	C502.1	BTL 1
2	How to Handle the Exception in Java? [NOV / DEC 2016] [ <b>NOV/DEC 2015</b> ]	C502.1	BTL 1
3	How interface is declared and how to create thread? [ <b>NOV/DEC 2017</b> ]	C502.1	BTL 1
4	Explain detail about Java Streams and I/O?	C502.1	BTL 1
5	Discuss the types of inheritance in java. [NOV / DEC 2016]	C502.1	BTL 1
6	Dicuss the concepts of Applets in detail. [ <b>NOV/DEC 2017</b> ]	C502.1	BTL 1
7	Eplain the types of constructor with examples. [NOV / DEC 2016]	C502.1	BTL 1
8	Explain the use of BufferedREader object to read characters from the console using a program. [NOV / DEC 2016]	C502.1	BTL 1

## UNIT – 2

### UNIT-II - WEBSITES BASICS, HTML 5, CSS 3, WEB 2.0 8

Web 2.0: Basics-RIA Rich Internet Applications - Collaborations tools - Understanding websites and web servers: Understanding Internet – Difference between websites and web server- Internet technologies Overview –Understanding the difference between internet and intranet; HTML and CSS: HTML 5.0 , XHTML, CSS 3.

S. No.	Question	Course Outcome	Blooms Taxanomy Level
1	<b>What is the difference between node and host?</b> A node is any addressable device connected to a network whereas the host is a more specific descriptor that refers to a networked general-purpose computer rather than a single purpose device (such as a printer).	C502.2	BTL 1
2	<b>What is the purpose of routers?</b> Router operates like electronic postal workers that evaluate and forward packets between networks.	C502.2	BTL 1
3	<b>Define protocol.</b> A protocol is a formal set of rules that must be followed in order to communicate.	C502.2	BTL 1
4	<b>Why are the protocols layered?</b>	C502.2	BTL 1

	Layering protocols simplifies the task of communicating over the network and it allows for reuse of layers that are not specific to a particular application.		
5	<b>Define encapsulation.</b> Placing the data inside a package of headers is known as encapsulation.	C502.2	BTL 1
6	<b>Define port.</b> A port is a logical channel to an application running on a host. ie., The applications running on the host machines are uniquely identified by port numbers.	C502.2	BTL 1
7	<b>What is meant by Name Resolution?</b> Name Resolution is the process of mapping a hostname to its corresponding IP Address. One way to translate a hostname to an IP address is to look it up in a simple text file. The second way is the domain name service, which is a distributed database containing all registered hostnames on the Internet and their IP addresses.	C502.2	BTL 1
8	<b>Define protocol tunneling.</b> Protocol tunneling is the process of encapsulating one protocol within another protocol that operates on the same layer.	C502.2	BTL 1
9	<b>Define URI.</b> 1. URI (Uniform Resource Identifier): It identifies an object on the Internet.	C502.2	BTL 1
10	<b>What are the components of HTTP URL?</b> The components are host, an optional port, path, filename, section and query string.	C502.2	BTL 1
11	<b>Define URL encoding.</b> URL encoding involves replacing all unsafe and nonprintable characters with a percent sign (%) followed by two hexadecimal digits corresponding to the character's ASCII value.	C502.2	BTL 1
12	<b>Define HTML.</b> It is a simple page description language, which enables document creation for the web.	C502.2	BTL 1
13	<b>What is meant by loop back address?</b> A zone that enables the server to direct traffic to itself. The host number is almost always 127.0.0.1.	C502.2	BTL 1
14	<b>Define CGI -Common Gateway Interface.</b>		

	A specification for transferring information between a World Wide Web server and a CGI program. A CGI program is any program designed to accept and return data that conforms to the CGI specification. The program could be written in any programming language, including C, Perl, Java, or Visual Basic.	C502.2	BTL 1
15	<b>Write a note on Internet Information Server (IIS).</b> Microsoft's Web server that runs on Windows NT platforms, In fact, IIS comes bundled with Windows NT 4.0. Because IIS is tightly integrated with the operating system, it is relatively easy to administer.	C502.2	BTL 1
16	<b>What are ISAPI (Internet Server API) and NSAPI (Netscape Server API)</b> ISAPI (Internet Server API): An API for Microsoft's IIS (Internet Information Server) Web server. ISAPI enables programmers to develop Web-based applications that run much faster than conventional CGI programs because they're more tightly integrated with the Web server. In addition to IIS, several Web servers from companies other than Microsoft support ISAPI. NSAPI -Netscape Server API: An API for Netscape's Web servers. NSAPI enables programmers to create Web-based applications that are more sophisticated and run much faster than applications based on CGI scripts.	C502.2	BTL 1
17	<b>What is API -Application Program Interface?</b> A set of routines, protocols, and tools for building software applications. A good API makes it easier to develop a program by providing all the building blocks. A programmer puts the blocks together.	C502.2	BTL 1
18	<b>What are Style Sheets?</b> Style sheets are collections of style information that are applied to plain text. Style information includes font attributes such as type size, special effects (bold,italic,underline), color and alignment. Style sheets also provide broader formatting instructions by specifying values for quantities such as line spacing and left and right margins.	C502.2	BTL 1
19	<b>Give the elements to write a script?</b>		

	<p>&lt;script type="text/javascript"&gt; write script here&lt;/script&gt;</p> <p>3. List down the ways of including style information in a document?</p> <p>1.Linked Styles-Style information is read from a separate file that is specified in the &lt;LINK&gt; tag</p> <p>2.Embedded Styles-Style information is defined in the document head using the &lt;STYLE&gt; and &lt;/STYLE&gt; tags.</p> <p>3.Inline Styles-Style information is placed inside an HTML tag and applies to all content between that tag and its companion closing tag.</p>	C502.2	BTL 1
20	<p><b>Define cascading?</b></p> <p>Cascading refers to a certain set of rules that browsers use to determine how to use the style information. Such a set of rules is useful in the event of conflicting style information because the rules would give the browser a way to determine which style is given precedence.</p>	C502.2	BTL 1
21	<p><b>What are the style precedence rules when using multiple approaches?</b></p> <p>Inline styles override both linked style sheets and style information stored in the document head with &lt;STYLE&gt; tag</p> <p>Styles defined in the document head override linked style sheets. Linked style sheets override browser defaults</p>	C502.2	BTL 1
22	<p><b>List down font characteristics permitted in Style Sheets.</b></p> <p>1.font-family 2.font-size 3.fontweight 4.font-style 5.fontvariant</p>	C502.2	BTL 1
23	<p><b>Give some methods of Date Object? [NOV / DEC 2016]</b></p> <p>getDate(), getDay(), getHours(), getMonth(), getMinutes(), getSeconds(), getFullYear()</p>	C502.2	BTL 1
24	<p><b>Define Scriptlets</b></p> <p>Scriptlets enable you to create small, reusable web applications that can be used in any web page. Scriptlets are created using HTML, scripting and Dynamic HTML. To</p>	C502.2	BTL 1



	include them in an HTML document use the <OBJECT> tag.		
25	<b>Define URL</b> URL (Uniform Resource Locator): It is a specification for identifying an object such as a file, newsgroup, CGI program or e-mail address by indicating the exact location on the internet.	C502.2	BTL 1
26	<b>Define URN.</b> URN (Uniform Resource Name): It is a method for referencing an object without declaring the full path to the object.	C502.2	BTL 1
27	<b>State the difference between internet and intranet. [NOV / DEC 2016]</b> There's one major distinction between an intranet and the Internet: The Internet is an open, public space, while an intranet is designed to be a private space. An intranet may be accessible from the Internet, but as a rule it's protected by a password and accessible only to employees or other authorized users.	C502.2	BTL 1
28	<b>Define Rich Internet Applications. [MAY/JUN 2016] [NOV / DEC 2016] [ APR / MAY 2017]</b> A rich Internet application (RIA) is a Web application designed to deliver the same features and functions normally associated with desktop applications. RIAs generally split the processing across the Internet/network divide by locating the user interface and related activity and capability on the client side, and the data manipulation and operation on the application server side.	C502.2	BTL 1
29	<b>Why we use XHTML? [ NOV/DEC 2017]</b> "XHTML 1.0 is a reformulation of HTML 4.01 in XML, and combines the strength of HTML 4 with the power of XML." This means that, by using XHTML, you are adding the potential of the power of XML to your Web pages. ... Basically, XHTML is strict HTML.	C502.2	BTL 1
30	<b>Write appropriate inline CSS to show a section of the HTML document with a font size of 20. [MAY/JUN 2016]</b> <pre> html&gt; &lt;html&gt; &lt;head&gt; &lt;title&gt;Playing with Inline Styles&lt;/title&gt; &lt;/head&gt; &lt;body&gt; &lt;p style="color:blue;font-size:46px;"&gt; I'm a big, blue, &lt;strong&gt;strong&lt;/strong&gt; paragraph &lt;/p&gt; &lt;/body&gt; &lt;/html&gt; </pre>	C502.2	BTL 1
<b><u>PART B</u></b>			

1	Explain in detail about RIA Rich Internet Applications? [NOV / DEC 2016]	C502.2	BTL 1
2	Discuss the HTML and XHTML Tags. [NOV / DEC 2016] [MAY/JUN 2016] [ NOV/DEC 2017] [ NOV/DEC 2015]	C502.2	BTL 1
3	Explain in detail about CSS? [NOV / DEC 2016] [ NOV/DEC 2017] [ NOV/DEC 2015]	C502.2	BTL 1
4	Explain in detail about Web Servers in Internet? [ NOV/DEC 2015] [ APR / MAY 2017]	C502.2	BTL 1
5	Explain about internet technologies in detail. [NOV / DEC 2016]	C502.2	BTL 1

### UNIT – 3

#### UNIT III - CLIENT SIDE AND SERVER SIDE PROGRAMMING

Java Script: An introduction to JavaScript–JavaScript DOM Model-Date and Objects,-Regular Expressions- Exception Handling-Validation-Built-in objects-Event Handling- DHTML with JavaScript. Servlets: Java Servlet Architecture- Servlet Life Cycle- Form GET and POST actions- Session Handling- Understanding Cookies- Installing and Configuring Apache Tomcat Web Server;- DATABASE CONNECTIVITY: JDBC perspectives, JDBC program example - JSP: Understanding Java Server Pages-JSP Standard Tag Library(JSTL)-Creating HTML forms by embedding JSP code.

S. No.	Question	Course Outcome	Blooms Taxonomy Level
1	<b>What is a DOM? [ NOV/DEC 2017]</b> A Document Object Model is an application programming interface that defines how javascript programs can access and manipulate the HTML document currently displayed by a browser.	C502.3	BTL 1
2	<b>What is an Event? [ NOV/DEC 2015]</b> An event in a browser is an occurrence of potential interest. Example events are the mouse moving over an element. a mouse button being clicked, or a key being pressed. Each type of event has an abbreviated name associated with it.	C502.3	BTL 1
3	<b>Define Intrinsic Event handling.</b> Browser-based java script programs are event-driven.ie, the java script functions are called in response to various user actions, such as clicking a button, or moving the mouse over a certain element.	C502.3	BTL 1
4	<b>What is Event listener in DOM?</b>		

	An event listener is a function that takes a single argument that is an instance of Event. A call to the addEventListener () method on a node object associates an event listener with a type of event occurring on that node.	C502.3	BTL 1
5	<b>Differentiate Dynamic document with Static document?</b> An HTML document that contains scripting is called a dynamic document whereas a simple HTML document without scripting is known as a static document.	C502.3	BTL 1
6	<b>What are the stages in a Servlet life cycle?</b> 1.init() 2.service() 3.destroy()	C502.3	BTL 1
7	<b>What are Servlets? [NOV / DEC 2016] [ NOV/DEC 2017]</b> A small program that runs on a server, the term usually refers to a Java applet that runs within a Web server environment. This is analogous to a Java applet that runs within a Web browser environment. Java servlets are becoming increasingly popular as an alternative to CGI programs. The biggest difference between the two is that a Java applet is persistent.	C502.3	BTL 1
8	<b>What is a Session?</b> A collection of HTTP requests all associated with a single session ID is known as a session. Each HTTP request is examined by the server to see if it contains a special identifier known as a session ID.	C502.3	BTL 1
9	<b>What are Cookies? [ NOV/DEC 2015]</b> A cookie is a Name-value pair that a web server sends to a client machine as part of an HTTP response, specifically through the Set-Cookie header field. Browsers will store the cookie pairs found in the response in a file on the client machine.	C502.3	BTL 1
10	<b>What are the actions involved in a doGet()method?</b> 1.Set the HTTP Content-Type header of the response. 2.Obtain a PrintWriter object from the HttpServletResponse parameter object. 3.Output a valid HTML document to the PrintWriter object. 4.Close the PrintWriter object.	C502.3	BTL 1
11	<b>Illustrate the general steps to run a servlet.</b> 1.Compile the servlet using an appropriate compiler version.	C502.3	BTL 1

	<p>2.Copy the resulting .class file to the appropriate directory for our javaservlet capable server.</p> <p>3.Start the server</p> <p>4.Navigate to the URL corresponding to the servlet.</p>		
12	<p><b>Define a parameter name or value?</b>  A parameter name or value can be composed of any sequence of 8-bit characters, including control characters and other nonprinting characters. if a name or value contains any nonalphanumeric characters then the name or value will undergo a transformation known as url encoding.</p>	C502.3	BTL 1
13	<p><b>How to terminate a Session?</b>  The Http Session interface defines a setMaxInactiveInterval(int interval)method that takes an integer argument interval representing a number of seconds. if more than interval seconds elapse between any two HTTP requests to the servlet from the user represented by this Http Session object, then the users session will expire before the second of these two requests can be processed.</p>	C502.3	BTL 1
14	<p><b>Define Java Server Pages?</b>  It can be defined as one instantiation of a class of related technologies that facilitate separate development of a website’s presentation and logic. The key contribution of these technologies is to embed program code related to presentation within a document.</p>	C502.3	BTL 1
15	<p><b>What is a Scriptlet?</b>  A Scriptlet is a fragment of java code that is embedded within the JSP document.</p>	C502.3	BTL 1
16	<p><b>What are the drawbacks of two-step approach in JSP over direct interpretation?</b>  1.Debugging  2.Delay during the first time a JSP document is requested.</p>	C502.3	BTL 1
17	<p><b>Define a Web Application?</b>  To implement larger tasks, a large collection of resources such as Servlets,JSP documents, Utility and Support Java Classes, Static HTML documents, Style Sheets, JavaScript files, Images are needed that work together in order to provide what appears to an end user to be a single software application.. Such a collection of resources is known as aweb application.</p>	C502.3	BTL 1
18	<p><b>Write the steps for installing a Web Application?</b></p>		

	1.Create a directory under the webapps subdirectory. 2.Place the JSP document in the new subdirectory. 3.Deploy the application to the sever.	C502.3	BTL 1
19	<b>Name the three types of information available in a valid JSP document?</b> 1.JSP markup 2.Expression Language(EL)expressions 3.Template data	C502.3	BTL 1
20	<b>What are the two contexts by which an EL expression can be invoked?</b> 1.Within template data 2.Within certain attribute values in JSP markup	C502.3	BTL 1
21	<b>What are the Literals that can be used in a EL?</b> 1.The Booleans-True and False 2.Decimal,Integer and Floating point 3.Reserved word-Null	C502.3	BTL 1
22	<b>Name the reserved words in EL?</b> 1.and 2.div 3.empty 4.eq 5.false 6.ge 7.gt 8.not 9.null	C502.3	BTL 1
23	<b>What is the function of EL implicit objects pageScope and requestScope?</b> pageScope-Values accessible via calls to page.getAttribute() requestScope- Values accessible via calls to requestpage.getAttribute()	C502.3	BTL 1
24	<b>Name the two types of directives available for use in a JSP document?</b> <b>1.Page</b> -The page directive(directive. page element) has a variety of attributes that may be set. <b>2.Include</b> -The include directive(directive. include element) imports text from another file into the JSP document at the point at which the directive appears.	C502.3	BTL 1
25	<b>What is known as a Translation Unit?</b> A top-level JSP document plus all of the segments it includes either directly or indirectly through include directives in segments is known as a translation unit, because the translator effectively assembles all of the text from these files into a single JSP document which is then translated.	C502.3	BTL 1
26	<b>What are the three categories of JSP element types?</b> 1.Scripting	C502.3	BTL 1

	2.Directive 3.Action		
27	<b>Explain the JSP action element?</b> It is an element that is translated into javax.servlet code that performs some action. These elements provide standard actions ie, the actions that are required by the JSP specification to be provided by any JSP-compliant container. The JSP tag library mechanism allows additional action elements to be used within a JSP document, which provide custom actions.	C502.3	BTL 1
28	<b>Give some JSTL Core actions and their functions.</b> set-Assign a value to a scoped variable remove-Destroy a Scoped variable url-Create a URL with query string forEach-Iterate over a collection of items	C502.3	BTL 1
29	<b>Define a Scoped variable.</b> It is a non implicit EL variable, that is an attribute of one of the page ,request ,session,or application objects. The object containing the attribute is called the scope of the variable and hence the name scoped variable	C502.3	BTL 1
30	<b>What are Servlets?</b> A small program that runs on a server, the term usually refers to a Java applet that runs within a Web server environment. This is analogous to a Java applet that runs within a Web browser environment.	C502.3	BTL 1
31	<b>Explain the servlet interface and its methods. [NOV / DEC 2016]</b> Servlet interface provides common behavior to all the servlets. Servlet interface defines methods that all servlets must implement. Servlet interface needs to be implemented for creating any servlet (either directly or indirectly).	C502.3	BTL 1
32	<b>Write appropriate JS code to remove an element from a DOM. [MAY/JUN 2016]</b>	C502.3	BTL 1
33	<b>Write the code segment to store current server time in session using Java Servlet API. [MAY/JUN 2016]</b> The Session Tracking API, as we call the portion of the Servlet API devoted to session tracking, should be supported in any web server that supports servlets. The level of support, however, depends on the server. The minimal implementation provided by the servlet	C502.3	BTL 1

	classes in JSDK 2.0 manages sessions through the use of persistent cookies. A server can build on this base to provide additional features and capabilities.		
<b><u>PART B</u></b>			
1	Explain in detail about DOM Model? [ <b>NOV/DEC 2015</b> ]	C502.3	BTL 1
2	Discuss the concept of Handling in DOM. [ <b>APR / MAY 2017</b> ]	C502.3	BTL 1
3	Explain in detail about Java Servlet Life Cycle?	C502.3	BTL 1
4	Discuss the Java Database Connectivity. [ <b>MAY/JUN 2016</b> ] [ <b>NOV/DEC 2017</b> ] [ <b>NOV/DEC 2015</b> ]	C502.3	BTL 1
5	Explain in detail about Java Serve Pages scripting components with examples? [ <b>NOV / DEC 2016</b> ] [ <b>NOV/DEC 2017</b> ]	C502.3	BTL 1
6	Write a DHTML program to handle the user click event. [ <b>NOV / DEC 2016</b> ]	C502.3	BTL 1
7	Explain the use of cookies for tracking requests with a program. [ <b>NOV/DEC 2017</b> ]	C502.3	BTL 1

#### UNIT – 4

##### UNIT IV - PHP and XML

An introduction to PHP: PHP- Using PHP- Variables- Program control- Built-in functions-Connecting to Database – Using Cookies-Regular Expressions; XML: Basic XML- Document Type Definition XML Schema DOM and Presenting XML, XML Parsers and Validation, XSL and XSLT Transformation, News Feed (RSS and ATOM).

S. No.	Question	Course Outcome	Blooms Taxonomy Level
1	<b>What is PHP?</b> [NOV / DEC 2016] [ NOV/DEC 2017] [ NOV/DEC 2015] Hypertext Preprocessor is open source server-side scripting language that is widely used for web development. PHP scripts are executed on the server. PHP allows writing dynamically generated web pages efficiently and quickly. The syntax is mostly borrowed from C, Java and perl. PHP is free to download and use.	C502.4	BTL 1
2	<b>What is PEAR in php?</b> PEAR(PHP Extension and Application Repository) is a framework and repository for reusable PHP components. PEAR is a code repository containing	C502.4	BTL 1

	all kinds of php code snippets and libraries. PEAR also offers a command-line interface that can be used to automatically install "packages".		
3	<p><b>Explain how to submit form without a submit button.</b></p> <p>We can achieve the above task by using JavaScript code linked to an event trigger of any form field and call the document.form.submit() function in JavaScript code.</p>	C502.4	BTL 1
4	<p><b>Difference between Echo vs. print statement.</b></p> <p>echo() and print() are language constructs in PHP, both are used to output strings. The speed of both statements is almost the same. echo() can take multiple expressions whereas print cannot take multiple expressions. Print return true or false based on success or failure whereas echo doesn't return true or false.</p>	C502.4	BTL 1
5	<p><b>Difference between \$message vs. \$\$message in PHP.</b></p> <p>\$message is a variable with a fixed name. \$\$message is a variable whose name is stored in \$message. If \$message contains "var", \$\$message is the same as \$var.</p>	C502.4	BTL 1
6	<p><b>Explain the different types of errors in PHP.</b></p> <p>Notices, Warnings and Fatal errors are the types of errors in PHP</p> <p><b>Notices:</b></p> <p>Notices represents non-critical errors, i.e. accessing a variable that has not yet been defined. By default, such errors are not displayed to the user at all but whenever required, you can change this default behavior.</p> <p><b>Warnings:</b></p> <p>Warnings are more serious errors but they do not result in script termination. i.e calling include() a file which does not exist. By default, these errors are displayed to the user.</p> <p><b>Fatal errors:</b></p> <p>Fatal errors are critical errors i.e. calling a non-existent function or class. These errors cause the immediate termination of the script. Explain the importance of the function htmlentities. The htmlentities() function converts characters to HTML entities.</p>	C502.4	BTL 1
7	<p><b>What is MIME?</b></p> <p>MIME - Multi-purpose Internet Mail Extensions.</p>		



	<p>MIME types represents a standard way of classifying file types over Internet.</p> <p>Web servers and browsers have a list of MIME types, which facilitates files transfer of the same type in the same way, irrespective of operating system they are working in.</p> <p>A MIME type has two parts: a type and a subtype. They are separated by a slash (/). MIME type for Microsoft Word files is application and the subtype is msword, i.e. application/msword.</p>	C502.4	BTL 1
8	<p><b>What is the difference between PHP and JavaScript?</b></p> <p>The difference lies with the execution of the languages. PHP is server side scripting language, which means that it can't interact directly with the user. Whereas, JavaScript is client side scripting language, that is used to interact directly with the user..</p>	C502.4	BTL 1
9	<p><b>What does ODBC do in context with PHP?</b></p> <p>PHP supports many databases like dBase, Microsoft SQL Server, Oracle, etc. But, it also supports databases like filePro, FrontBase and InterBase with ODBC connectivity. ODBC stands for Open Database connectivity, which is a standard that allows user to communicate with other databases like Access and IBM DB2.</p>	C502.4	BTL 1
10	<p><b>What are XML Parsers? [ NOV/DEC 2017] [ NOV/DEC 2015]</b></p> <p>XML Parsers are used to check whether the document is well formed and valid.</p>	C502.4	BTL 1
11	<p><b>How is XML parsing done with SAX?</b></p> <p>A SAX parser is a mechanism for transforming an XML text document into stream of events corresponding to the markup and character data contained in the original document.</p>	C502.4	BTL 1
12	<p><b>Explain Event-oriented parsing.</b></p> <p>In this parsing, Parser interacts with an application as its reads an XML document when certain events occur and this approach is used by SAX (Simple API for XML) based parsers.</p>	C502.4	BTL 1
13	<p><b>What are the types of XML Parsers?</b></p> <p>There are two types</p> <ul style="list-style-type: none"> <li>• Validating Parsers</li> <li>• Non-Validating Parsers</li> </ul>	C502.4	BTL 1

14	<p><b>What is well-formed document?</b></p> <p>An HTML or XML document is said to be well formed when it contains elements with proper tagging and no syntactic errors.</p>	C502.4	BTL 1
15	<p><b>What is DTD?</b></p> <p>A Document Type Declaration enables an XML parser to verify whether an XML document is valid, i.e. its elements contain the proper attributes in the proper sequence.</p>	C502.4	BTL 1
16	<p><b>What is XML Namespace? [NOV / DEC 2016]</b></p> <p>An XML namespace is a collection of element and attribute names. Each namespace has a unique name that provides a means for document authors to unambiguously refer to elements with the same name in order to prevent collisions.</p>	C502.4	BTL 1
17	<p><b>What is the use of XML declaration?</b></p> <p>XML declaration is a special tag used to specify the version of XML used to write the document and optionally some additional meta-information about the document such as the character set/encoding used. For e.g the syntax of XML declaration is &lt;? XML VERSION="1.0"?&gt;</p>	C502.4	BTL 1
18	<p><b>What is the purpose of XSLT? [MAY/JUN 2016]</b></p> <ul style="list-style-type: none"> <li>• The XSLT stands for XSL Transformations and XSL stands for extensible Style sheet Language.</li> <li>• The XSLT is used for defining the XML document transformation and presentations.</li> </ul>	C502.4	BTL 1
19	<p><b>What are XML Schemas?</b></p> <p>XML Schemas are part of the XML vocabulary and its addresses the standard for XML document validation by including a definition of a collection of standard data types which are used to describe data structures.</p>	C502.4	BTL 1
20	<p><b>What are built-in data types for XML Schema?</b></p> <p>The data types defined by the XML Schema specification itself are called its built-in data types. For e.g : xsd:integer, xsd:decimal, xsd:string, xsd:boolean, xsd:float etc.,</p>	C502.4	BTL 1
21	<p><b>What Do You Mean by DTD IN XML?</b></p> <ul style="list-style-type: none"> <li>• DTD means Document Type Definition.</li> <li>• DTD file is similar to CSS file, because DTD also contains only styles.</li> </ul>	C502.4	BTL 1

	<ul style="list-style-type: none"> <li>• DTD contains various styles which are to be applied in XML document.</li> <li>• Like .CSS file .DTD file also should be linked with XML program.</li> <li>• Styles in XML program should be save with .xsl (Xml Style Sheet Language) extension.</li> </ul>		
22	<p><b>Define XML.</b> XML is a meta- markup language that provides a format for describing structured data. This facilitates more structured declarations of content and more meaningful search results across multiple platforms.</p>	C502.4	BTL 1
23	<p><b>Define DTD.</b> A DTD is a set of rules that specifies how to use XML markup. It contains specifications for each element, including what the element's attributes are, what values the attributes can take on and what elements can be contained in others.</p>	C502.4	BTL 1
24	<p><b>When should the super global arrays in PHP be used? Which super global array in PHP would contain a HTML form's POST data? [MAY/JUN 2016]</b></p> <p>\$GLOBALS is a PHP super global variable which is used to access global variables from anywhere in the PHP script (also from within functions or methods). PHP stores all global variables in an array called \$GLOBALS[index]. The <i>index</i> holds the name of the variable.</p>	C502.4	BTL 1
<b><u>PART B</u></b>			
1	Explain in detail about how to connect database with PHP? [NOV / DEC 2016]	C502.4	BTL 1
2	Discuss the PHP variables and program control. [MAY/JUN 2016] [ NOV/DEC 2015]	C502.4	BTL 1
3	Explain in detail about Document Type Definition?	C502.4	BTL 1
4	Discuss the concepts of XML Schema, built in and user defined data types in detail. [NOV / DEC 2016] [MAY/JUN 2016] [ NOV/DEC 2017] [ NOV/DEC 2015]	C502.4	BTL 1
5	Discuss the XSL and XSLT Transformation. [ NOV/DEC 2017]	C502.4	BTL 1
6	Explain the string comparison capability of PHP using regular expressions with an example. [NOV / DEC 2016] [ NOV/DEC 2017]	C502.4	BTL 1

## UNIT – 5

### UNIT V - INTRODUCTION TO AJAX and WEB SERVICES

AJAX: Ajax Client Server Architecture-XML Http Request Object-Call Back Methods; Web Services: Introduction- Java web services Basics – Creating, Publishing, Testing and Describing a Web services (WSDL)-Consuming a web service, Database Driven web service from an application – SOAP.

S. No.	Question	Course Outcome	Blooms Taxonomy Level
1	<p><b>Define a Web Service. [ NOV/DEC 2017] [ NOV/DEC 2015]</b>            A web service is a server application that uses HTTP to accept and return SOAP documents, where the content of the documents is specified by a WSDL document that uses embedded XML Schema markup to define data types.</p>	C502.5	BTL 1
2	<p><b>Describe the implementation of Web Service.</b>            A web service servlet accepts HTTP requests from clients and provides an HTTP response for each request received. It expects that each HTTP request it receives will contain a SOAP XML document in the body of the request. This SOAP document specifies an operation to be performed by the web service and supplies input data for that operation.</p>	C502.5	BTL 1
3	<p><b>Define a WSDL. [NOV / DEC 2016]</b>            A Web service definition language document for a web service identifies the operations provided by the web service, what the input data to each operation is, and what output data is produced by the operation.</p>	C502.5	BTL 1
4	<p><b>What is known as the Service Endpoint Interface? [NOV / DEC 2016]</b>            The starting point for writing a web service using the JWSDP 1.3 tools is writing a Java interface that specifies the operations that will be provided by the service(essentially an API for the service).This is known as the service endpoint interface.</p>	C502.5	BTL 1
5	<p><b>Write the basic rules for service endpoint interface.</b>            1.the interface must extend the java.rmi.Remote interface</p>	C502.5	BTL 1

	<p>2. Every method in the interface must throw java.rmi.RemoteException</p> <p>3. Every method parameter and every return value must conform to certain restrictions on the allowed data types</p> <p>4. The interface must not contain any public static final declarations.</p>		
6	<p><b>Define XML Schema.</b> XML schema defines the structure of XML documents. A key contribution of XML schema is its definition of a collection of standard data types. Each data type definition includes a specification of the range of values that can be represented by the data type and details on how to represent those values as strings.</p>	C502.5	BTL 1
7	<p><b>What is a deployment descriptor?</b> Deployment descriptor specifies various configuration parameters.</p>	C502.5	BTL 1
8	<p><b>Define Simple Object Access Protocol.(SOAP). [MAY/JUN 2016]</b> SOAP is an XML vocabulary that can be used to communicate data and was originally designed for communicating structured data that might be found in object-oriented programs.</p>	C502.5	BTL 1
9	<p><b>What is RPC Representation?</b> RPC is the generic term for the type of communication used for web service operations. The client makes a call to a method or procedure that resides on another machine. This concept has been implemented in many ways by many programming languages and operating systems</p>	C502.5	BTL 1
10	<p><b>Define a Struct?</b> A struct can be thought of as an instance of a class that consists entirely of public instance variables. It is simply a container in which data can be stored in named variables.</p>	C502.5	BTL 1
11	<p><b>What is literal-encoding?</b> An encoding conforming with the XML schema contained in the we service's WSDL over SOAP 1.1 encoding of data. A literal encoding is indicated within a WSDL by specifying literal for the use attribute of a soap:body element.</p>	C502.5	BTL 1
12	<p><b>Name the two operations defined by WSDL 1.1.</b></p>		

	1.RPC 2.Document	C502.5	BTL 1
13	<b>Define Serialization?</b> The flexibility in converting from an internal form of data to a SOAP representation is known as serialization and it comes at the price of forcing the software that deserializes a SOAP representation to be prepared to accept SOAP documents in a variety of forms.	C502.5	BTL 1
14	<b>Describe the Java support for SOAP?</b> Java provides support for creating and manipulating SOAP documents through SAAJ, the SOAP with Attachments API for Java technology. This API is included with JWSDP1.3.	C502.5	BTL 1
15	<b>What are Serializable objects?</b> When an object is serialized, the data contained within the object is transformed into a stream of bytes representing the data. This object data stream can then be stored in a file, transmitted over a communications network, or treated like any other stream of data.	C502.5	BTL 1
16	<b>Name the methods of HttpServletRequest interface?</b> String getParameter(string name), string[] getParameterValues(String name), cookie[] getCookies(), HttpSession getSession(boolean, create)	C502.5	BTL 1
17	<b>What are directives?</b> Directives are messages to the jsp container that enables the programmer to specify page settings, to include content from other resources and to specify custom-tag libraries for use in JSP.	C502.5	BTL 1
18	<b>Name the Header Child Element Attributes in SOAP?</b> 1.must understand 2.encoding style 3.role 4.relay	C502.5	BTL 1
19	<b>What is the use of JSP?</b> JSP enable web application programmers to create dynamic content by reusing predefined components and by interacting with components using server side scripting.	C502.5	BTL 1
20	<b>Differentiate a Simple type with a Complex type</b> A simple type is a data type whose values are represented in XML documents by character data, while a complex type is represented using markup.	C502.5	BTL 1

21	<p><b>Define CDATA?</b> Character data(CDATA) is a text in a document that should not be parsed by the XML parser. Any entities included in the CDATA block will not be replaced by their value and markup (such as HTML tags) will not be treated as markup.</p>	C502.5	BTL 1
22	<p><b>Describe the structure of SOAP element? [MAY/JUN 2016]</b> It consists of the following: 1.The SOAP envelope element 2.The SOAP header element 3.The SOAP body element 4.The SOAP fault element</p>	C502.5	BTL 1
23	<p><b>Define JAX-RPC?</b> JAX-RPC (Java API for XML-Based RPC) is an application program interface (API) in the Java Web Services Developer Pack (WSDP) that enables Java developers to include remote procedure calls (RPCs) with Web services or other Web-based applications. JAXRPC is aimed at making it easier for applications or Web services to call other applications or Web services.</p>	C502.5	BTL 1
24	<p><b>What is SOAP Envelope element?</b> The required SOAP Envelope element is the root element of a SOAP message. This element defines the XML document as a SOAP message. <b>Example</b> &lt;?xml version="1.0"?&gt; &lt;soap:Envelope xmlns:soap="http://www.w3.org/2001/12/soapenvelope" soap:encodingStyle="http://www.w3.org/2001/12/soap-encoding"&gt; Message information goes here &lt;/soap:Envelope&gt;</p>	C502.5	BTL 1
25	<p><b>What are Serializable objects?</b> When an object is serialized, the data contained within the object is transformed into a stream of bytes representing the data. This object data stream can then be stored in a file, transmitted over a communications network, or treated like any other stream of data.</p>	C502.5	BTL 1
26	<p><b>Name the methods of HttpServletRequest interface?</b> String getParameter(string name), string[] getParameterValues(String name), cookie[] getCookies(), HttpSession getSession(boolean, create)</p>	C502.5	BTL 1

27	<p><b>What is RPC Representation?</b>  RPC is the generic term for the type of communication used for web service operations. The client makes a call to a method or procedure that resides on another machine. This concept has been implemented in many ways by many programming languages and operating systems</p>	C502.5	BTL 1
28	<p><b>Define a Struct?</b>  A struct can be thought of as an instance of a class that consists entirely of public instance variables. It is simply a container in which data can be stored in named variables.</p>	C502.5	BTL 1
29	<p><b>Differentiate a Simple type with a Complex type</b>  A simple type is a data type whose values are represented in XML documents by character data, while a complex type is represented using markup.</p>	C502.5	BTL 1
30	<p><b>Define CDATA?</b>  Character data(CDATA) is a text in a document that should not be parsed by the XML parser. Any entities included in the CDATA block will not be replaced by their value and markup (such as HTML tags) will not be treated as markup.</p>	C502.5	BTL 1
31	<p><b>State the advantages of AJAX. [NOV / DEC 2015]</b>  Advantages of AJAX. Reduce the traffic travels between the client and the server. Response time is faster so increases performance and speed. You can use JSON (JavaScript Object Notation) which is alternative to XML.</p>	C502.5	BTL 1
32	<p><b>What is the role of a callback function in performing a partial page update in an AJAX application? [MAY/JUN 2016]</b>  Async callback goes by a number of different names in the .NET community such as <b>XMLHttpRequest</b>, AJAX, asynchronous client script callback, to name a few. However the basic building block for callback is theXMLHttpRequest object. It is an API available in JavaScript which is used to send HTTP requests directly from the client to the server and loads the server response back to the browser. The most obvious question which comes to my mind is then what is the difference between callback and postback. Both hit the server and gets data back to the client. Callbacks differ from postback in which the former only sends relevant information back to the server and preserves the <b>Viewstate</b> and the form data. All the ASP.NET server page cycles occur along with client</p>	C502.5	BTL 1



	side events. This helps in loading the page faster because in the rendering phase only the <b>relevant</b> contents is sent to the browser. For example in AJAX, only the contents of the UpdatePanel are rendered in the browser.		
<b><u>PART B</u></b>			
1	Explain the Ajax Client Server Architecture in detail? <b>[NOV / DEC 2016] [MAY/JUN 2016] [ NOV/DEC 2017] [ NOV/DEC 2015]</b>	C502.5	BTL 1
2	Discuss the XML Http Request Object-Call Back Methods. <b>[NOV / DEC 2016] [ NOV/DEC 2017]</b>	C502.5	BTL 1
3	Explain in detail about Java web services ? <b>[NOV / DEC 2016]</b>	C502.5	BTL 1
4	Discuss about Database Driven web service.	C502.5	BTL 1
5	Explain in detail about SOAP? <b>[NOV / DEC 2016] [ NOV/DEC 2017]</b>	C502.5	BTL 1
6	Describe the structure of WSDL document, its elements and their purposes with appropriate examples. <b>[MAY/JUN 2016] [ NOV/DEC 2015]</b>	C502.5	BTL 1