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INSTITUTE OF AERONAUTICAL ENGINEERING

(Autonomous)

Dundigal, Hyderabad - 500 043

COMPUTER SCIENCE AND ENGINEERING

TUTORIAL QUESTION BANK

| Course Name | Advanced Web Technologies |
|---------------------|---------------------------|
| Course Code | BCS204 |
| Class | I M. Tech |
| Branch | CSE |
| Year | 2016 - 2017 |
| Team of Instructors | Ms. A. Soujanya |

OBJECTIVES

To meet the challenge of ensuring excellence in engineering education, the issue of quality needs to be addressed, debated and taken forward in a systematic manner. Accreditation is the principal means of quality assurance in higher education. The major emphasis of accreditation process is to measure the outcomes of the program that is being accredited.

In line with this, faculty of Institute of Aeronautical Engineering, Hyderabad has taken a lead in incorporating philosophy of outcome based education in the process of problem solving and career development. So, all students of the institute should understand the depth and approach of course to be taught through this question bank, which will enhance learner's learning process.

PART – A (SHORT ANSWER QUESTIONS)

| S. No | QUESTIONS | Blooms taxonomy level | Course outcome |
|-------|---|-----------------------------|----------------|
| | UNIT – I | | |
| | CLIENT SIDE TECHNOLOGIES | | |
| 1. | Explain about the Change Font Face tag? | Understand | |
| 2. | Describe the use of Tables in the HTML? | Knowledge | |
| 3. | Define Frames? | Knowledge | |
| 4. | Explain about the use of classes in CSS? | Understand | |
| 5. | Explain the general statements used in the CSS for text, tables? | Understand | |
| 6. | Define Variable in JavaScripts? | Knowledge | |
| 7. | Explain the use of objects in Java Scripts? | Understand | |
| 8. | Explain how form Validation is used in Java Scripts? | Understand | |
| 9. | Define Dynamic HTML? | Knowledge | |
| 10. | Explain about the string manipulation functions? | Understand | |
| 11. | Explain about the setTimedOut() method? | Understand | |
| 12. | Define setInterval() Method? | Knowledge | |
| 13. | Explain the difference between charAt() and charCodeAt() methods? | Understand | |
| 14. | Explain about Data Validation? | Understand | |
| 15. | Explain about constraint validation HTML input attributes? | Understand | |

PART – B (LONG ANSWER QUESTIONS)

| S. No | Question | Blooms Taxonomy Level | Course Outcome |
|-------|---|-----------------------------|-------------------|
| | UNIT – I | | |
| | CLIENT SIDE TECHNOLOGIES | | |
| 1. | Explain about various tags used in the HTML? | Understand | |
| 2. | Describe about the XHTML? | Knowledge | |
| 3. | Explain about the Cascading Style Sheets? | Understand | |
| 4. | Describe about the Javascripts? | Knowledge | |
| 5. | Explain the use of form validations in Java Scripts? | Understand | |
| 6. | Explain about Automatic HTML Form Validation? | Understand | |
| 7. | Explain about String HTML Wrapper Methods? | Understand | |
| 8. | Define object and explain about the methods, properties of objects in Java scripts? | Knowledge | |
| 9. | Explain steps for creating Dynamic HTML with Javascript? | Understand | |
| 10. | Define Array? How Arrays are created and used in Javascripts? | Knowledge | |
| 11. | Discuss about Java Script methods with an example? | Analyze | |
| 12. | Explain about HTML DOM tree of Objects? | Understand | |
| 13. | Define Frames? How frames are used in HTML? | Knowledge | |
| 14 | Explain about DOM id Property in HTML? | Understand | |
| 15. | Define Forms? Explain about the HTML forms? | Knowledge | |

PART – C (PROBLEM SOLVING AND CRITICAL THINKING QUESTIONS)

| S. No | Question | Blooms Taxonomy Level | Course Outcome |
|-------|---|-----------------------------|-------------------|
| | UNIT – I | | |
| 1. | CLIENT SIDE TECHNOLOGIES Define XML? Explain differences and similarities between HTML & CSS? Also explain the concept of Entities & Attributes in XML? | Understand | |
| 2. | Build a JavaScript that displays the as per the following: (calculates the squares and cubes of the numbers from 0 to 10) | Apply | |
| 3. | Build a JavaScript which accepts the text in lower case and displays the text in uppercase. | Apply | |
| 4. | Build a java script to validate a form consisting of user name .Also navigate to another web pages after navigation | Apply | |
| 5. | Build a java Script program to determine whether a given number is an Armstrong number or not. | Apply | |
| 6. | Build a JavaScript that reads list of ten numbers and displays the count of negative numbers, the count of positive numbers and the count of zeros from the list. | Apply | |
| 7. | Explain about Handling Timer Events? | Understand | |
| 8. | Explain about Document Object Model with an example? | Understand | |
| 9 | Describe about the Dynamic HTML along with Browser Object Models? | | |
| 10. | Explain about Built in methods used for accessing objects? | Understand | |

PART – A (SHORT ANSWER QUESTIONS)

| S. No | QUESTIONS | Blooms taxonomy level | Course outcome |
|-------|--|-----------------------------|----------------|
| | UNIT – II | | |
| | INTRODUCTION TO JAVA SERVELTS | | |
| 1. | Draw the life-cycle methods for a servlet? | Apply | |
| 2. | Define GUI? What are the drawbacks of GUI? | Knowledge | |
| 3. | Explain about servlet collaboration? | Understand | |
| 4. | Distinguish the difference between forward() method and sendRedirect() | Knowledge | |
| 5. | Define is Session Tracking? | Understand | |
| 6. | Explain is the use of attribute in servlets? | Knowledge | |
| 7. | Explain about cookies? Difference between Cookies and HttpSession? | Understand | |
| 8. | Explain about JDBC? | Understand | |
| 9. | Define Pooling Connection? | Understand | |
| 10. | Explain the security issues with AJAX? | Understand | |
| 11. | Explain about Hibernate Framework? | Understand | |
| 12. | Explain the parameters used in Connection pooling? | Understand | |
| 13. | Explain about the different types of JDBC Statements? | Understand | |
| 14. | List the methods used in ServletRequest? | Analyze | |
| 15. | Explain the various ready states of a request in AJA? | Understand | |

PART – B (LONG ANSWER QUESTIONS)

| S. No | QUESTIONS | Blooms taxonomy level | Course outcome |
|-------|---|-----------------------------|----------------|
| | UNIT – II | | |
| | INTRODUCTION TO JAVA SERVELTS | | |
| 1. | Explain Servlet Life Cycle? | Understand | |
| 2. | Difference between Cookies and HttpSession? | | |
| 3. | Explain about XML parsing with DOM? | Understand | |
| 4. | Explain briefly the technologies used in AJAX? | Understand | |
| 5. | Explain about XML parsing with SAX in java? | Understand | |
| 6. | Explain the process of creating objects in XML? | Understand | |
| 7. | Explain the difference between DOM and SAX Parsers in Java? | Understand | |
| 8. | Distinguish the difference between Hibernate save(), saveOrUpdate() and | Remember | |
| | persist() methods? | | |
| 9. | List the steps used for creating a connection object in | Remember | |
| 10. | Define HttpSession Interface? | Understand | |

PART – C (PROBLEM SOLVING AND CRITICAL THINKING QUESTIONS)

| S. No | QUESTIONS | Blooms taxonomy level | Course outcome |
|-------|---|-----------------------------|----------------|
| | UNIT – II | | |
| | INTRODUCTION TO JAVA SERVELTS | | |
| 1. | Explain the working of Servlet Application? | Understand | |
| 2. | Describe the process of create input page to receive any text or number? | Knowledge | |
| 3. | Explain briefly the methods of HttpServletRequest? | Understand | |
| 4. | Define Session Tracking? Explain the various technologies used in session tracking? | Knowledge | |

| 5. | Explain dynamic html? What is the main difference between DHTML and HTML? | Understand |
|-----|---|------------|
| 6. | Build a Servlet that generates HTML page and explain the process of generation of HTML page | Apply |
| 7. | Explain about Security Issues in Servlet? | Understand |
| 8. | Explain about XML parsing done with SAX in detail? | Understand |
| 9. | Build a Servlet program to illustrate parameter reading and parameter initializing? | Apply |
| 10. | Insert an image into a webpage. Build a script which displays a message when the mouse is over the image? | Apply |

PART – A (SHORT ANSWER QUESTIONS)

| S. No | QUESTIONS | Blooms taxonomy level | Course outcome |
|-------|--|-----------------------------|----------------|
| | UNIT – III | | |
| | INTRODUCTION TO JSP | | |
| 1. | Describe the advantages of JSP over Server-Side Includes? | Knowledge | |
| 2. | Explain about the types of directive tags? | Remember | |
| 3. | Define JSP? | Knowledge | |
| 4. | Differentiate the advantages of JSP over JavaScript? | Understand | |
| 5. | Explain about application Object? | Understand | |
| 6. | Explain about JSP declarations? | Understand | |
| 7. | In JSP page how can we handle runtime exception? Explain? | Knowledge | |
| 8. | Define <jsp:usebean> action?</jsp:usebean> | Knowledge | |
| 9. | Explain the need of tag library? | Understand | |
| 10. | Explain how to set cookies in JSP? | Understand | |
| 11. | Explain about JSP Expression Language? | Remember | |
| 12. | Explain about JSP Directives? | Remember | |
| 13. | Define session attribute? | Knowledge | |
| 14. | Explain tag used to pass information from JSP to included JSP? | Remember | |
| 15. | Explain about the options in JSP to include files? | Remember | |

PART – B (LONG ANSWER QUESTIONS)

| S. No | QUESTIONS | Blooms taxonomy level | Course outcome |
|-------|---|-----------------------------|----------------|
| | UNIT – III | | |
| | INTRODUCTION TO JSP | | |
| 1. | Explain the differences between custom JSP tags and Servlets? | Remember | |
| 2. | Explain how JSP pages the preferred API for creating a web-based client | Remember | |
| | program? | | |
| 3. | Explain the JSP processing? | Understand | |
| 4. | Describe the Anatomy of JSP Page? | Knowledge | |
| 5. | Explain the following attributes | Remember | |
| | i) Buffer | | |
| | ii) autoFlush | | |
| | iii) errorpage | | |
| | iv) isErrorpage | | |
| 6. | Explain Briefly how data is shared between jsp pages? | Remember | |
| 7. | Explain about exception handling in JSP? | Remember | |
| 8. | Explain about UseBean Tags? | Remember | |
| 9. | Explain about Exception Objects? | Remember | |

| 10. | List the types of JSP Implicit Objects? | Remember | |
|-----|---|----------|--|

PART – C (PROBLEM SOLVING AND CRITICAL THINKING QUESTIONS)

| S. No | QUESTIONS | Blooms taxonomy level | Course outcome |
|-------|--|-----------------------------|----------------|
| | UNIT – III | | |
| | INTRODUCTION TO JSP | | |
| 1. | Explain the process of creating database in JSP? | Remember | |
| 2. | Explain the user defined classes in detail? | Remember | |
| 3. | Explain the sharing session in JSP? | Remember | |
| 4. | Describe briefly about code snippets? | Understand | |
| 5. | Explain the JSP Scripting Languages? | Remember | |
| 6. | Explain how predefined variables are used in the JSP? | Remember | |
| 7. | Build a simple JSP Page? | Understand | |
| 8. | Explain the Translation and compilation in detail? | Remember | |
| 9. | Define the tag attributes that accept EL expressions? | Understand | |
| 10. | Explain the process of reusing the content in JSP Pages? | Remember | |

PART – A (SHORT ANSWER QUESTIONS)

| S. No | QUESTIONS | Blooms taxonomy level | Course outcome |
|-------|---|-----------------------------|----------------|
| | UNIT – IV | | |
| | INTRODUCTION TO JAVA SERVELTS | | |
| 1. | Define MVC? | Knowledge | |
| 2. | List the roles of a handler in MVC based applications? | Analyze | |
| 3. | Define HTML tags? | Knowledge | |
| 4. | Explain about presentation Layer in JSP? | Remember | |
| 5. | Explain the struts framework? | Remember | |
| 6. | List the JSP Action elements? | Analyze | |
| 7. | Explain the life cycle methods of interceptor? | Remember | |
| 8. | Define Action Chaining? | Knowledge | |
| 9. | Define JSP Bean? | Knowledge | |
| 10. | Define reset() method? | Knowledge | |
| 11. | List out the contents on web.xml in struts application? | Analyze | |
| 12. | Define validate() method? | Knowledge | |
| 13. | Define controller in Struts? | Knowledge | _ |
| 14. | List out the classes used in Struts? | Analyze | |
| 15. | List out the various Struts tag libraries? | Analyze | |

PART – B (LONG ANSWER QUESTIONS)

| S. No | QUESTIONS | Blooms taxonomy level | Course outcome | | |
|-------------------------------|---|-----------------------------|----------------|--|--|
| | UNIT – IV | | | | |
| INTRODUCTION TO JAVA SERVELTS | | | | | |
| 1. | Explain the working of validation in struts? | Remember | | | |
| 2. | Explain the MVC architecture and write a JSP program which prints the current date? | Remember | | | |

| 3. | Build a JSP program to perform Forward Action using Parameter Passing | Apply | |
|-----|---|------------|--|
| | techniques? | | |
| 4. | Describe briefly the difference between Struts 1 and Struts 2? | Understand | |
| 5. | Explain the various control tags used in struts? | Remember | |
| 6. | Explain the life cycle of strut2? | Remember | |
| 7. | Define Interceptors? Explain about Struts2 Framework Interceptors? | Understand | |
| 8. | Explain about type conversions in strut2? | Remember | |
| 9. | Explain about Results and Results types? | Remember | |
| 10. | Explain briefly various Struts tag libraries? | Remember | |

PART – C (PROBLEM SOLVING AND CRITICAL THINKING QUESTIONS)

| S. No | QUESTIONS | Blooms taxonomy level | Course outcome |
|-------|--|-----------------------------|----------------|
| | UNIT – IV | | |
| | SERVICE ORIENTED ARCHITECTURE AND WEB SERV | ICES | |
| 1. | Explain the process of handling exceptions in Struts application? | Remember | |
| 2. | Explain about XML Based Validation? | Remember | |
| 3. | Explain the steps for create Struts 2 Application with an example? | Remember | |
| 4. | Explain about Struts 2 validation by Bundled validators? | Remember | |
| 5. | Explain the features of struts 2 framework? | Remember | |
| 6. | Create a Struts 2 Configuration File? | Apply | |
| 7. | Explain the Block diagram of MVC Architecture? | Remember | |
| 8. | Explain the different views of MVC Framework? | Remember | |
| 9. | Create a MVC Layout? | Apply | |
| 10. | Explain the steps used for creating MVC application? | Remember | • |

PART – A (SHORT ANSWER QUESTIONS)

| S. No | QUESTIONS | Blooms taxonomy level | Course outcome |
|-------|---|-----------------------------|----------------|
| | UNIT – V | | |
| | SERVICE ORIENTED ARCHITECTURE AND WEB SERVIO | CES | |
| 1. | State the limitations of SOAP? | Knowledge | |
| 2. | Define MySql? | Understand | |
| 3. | Explain about interoperability? | Understand | |
| 4. | Explain about Web Services? | Remember | |
| 5. | Define Digital Signature? | Understand | |
| 6. | List the security issues in SOAP security? | Understand | |
| 7. | Explain about SOAP Encoding? | Understand | |
| 8. | List the operational models of web services? | Understand | |
| 9. | Define .NET? | Understand | |
| 10. | Explain the key characteristics of SOA? | Understand | |
| 11. | Explain about Apache Tomcat? | Knowledge | |
| 12. | Explain the difference between services and components? | Knowledge | |
| 13. | Explain the organizational benefits of SOA? | Apply | |
| 14. | List the benefits of SOA | Understand | |
| 15. | List the implementation Web services? | Understand | |

PART – B (LONG ANSWER QUESTIONS)

| S. No | QUESTIONS | Blooms taxonomy level | Course outcome |
|-------|---|-----------------------------|----------------|
| | UNIT – V | | |
| | SERVICE ORIENTED ARCHITECTURE AND WEB SERVICES | | |
| 1. | Explain the fundamentals of SOAP? | Remember | |
| 2. | Discuss about soap bindings for following transport protocols | Understand | |
| 3. | Discuss about building SOAP web services? | Understand | |
| 4. | Explain short notes on the following with reference to web services | Remember | |
| 5. | Explain about developing web services using Apache axis? | Remember | |
| 6. | Explain about default port for MySQL Server? | Remember | |
| 7. | Explain about web services interoperability? | Remember | |
| 8. | Describe the various storage engines are used in MySQL? | Knowledge | |
| 9. | Explain briefly about soap communication and messaging? | Remember | |
| 10. | Explain the of encoding in SOAP? | Remember | |

PART – C (PROBLEM SOLVING AND CRITICAL THINKING QUESTIONS)

| S. No | QUESTIONS | Blooms taxonomy level | Course outcome |
|-------|--|-----------------------------|----------------|
| | UNIT – V | | |
| | INTRODUCTION TO JAVA SERVELTS | | |
| 1. | Discuss about soap message exchange models? | Understand | |
| 2. | Explain about soap communication? | Remember | |
| 3. | Explain the web service life cycle? | Remember | |
| 4. | Explain about web services interoperability? | Remember | |
| 5. | Discuss web services implementation mode? How SOAP can be implemented as a server? | Understand | |
| 6. | Create the process of deploying a java web service on axis? | Apply | |
| 7. | Explain about soap security for soap encryption? | Remember | |
| 8. | Discuss about soap security for soap digital signature? | Remember | |
| 9. | Explain about soap security for soap authorization? | Remember | |
| 10. | Explain briefly about soap security? | Remember | |

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