Reg.No. \_\_\_\_\_\_\_\_\_\_\_\_



**UNIVERSITY**

(Karunya Institute of Technology & Sciences)

(Declared as Deemed-to-be University under Sec.3 of the UGC Act, 1956)

**End Semester Examination – April/May– 2017**

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| **Code :** | **15CS2003** | **Duration :** | **3hrs** |
| **Sub. Name :** | **WEB DEVELOPMENT USING JAVASCRIPT** | **Max. marks :** | **100** |

**ANSWER ALL QUESTIONS (5 x 20 = 100 Marks)**

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| Q. No. | Sub Div. | Questions | Course  Outcome | Marks |
| 1. | a. | Explain the bitwise operators in JavaScript with suitable examples. | CO1 | 10 |
| b. | Explain JavaScript garbage collection routines in detail. | CO1 | 10 |
| (OR) | | | | |
| 2. | a. | Discuss the following in detail with examples.   1. Recursion. 2. Closures. 3. Static Private Variables. | CO1 | 8  6  6 |
| b. | Create a web page using JavaScript to implement a following.  a) Get the integer value from the user, generate ‘n’ text box with respect to user’s input value.  b) Get the integer values from users in the generated text boxes.  c) Find the Mean and Median for the given input value. | CO2 | 10 |
| 3. |  | Sketch the hierarchy of nodes in a HTML document with suitable example. Explain the relationships between the nodes in the document family tree. | CO1 | 20 |
| (OR) | | | | |
| 4. | a. | Write notes on UI Event types in JavaScript with examples. | CO2 | 10 |
|  | b. | Explain the properties and methods of event objects with examples. | CO3 | 10 |
| 5. |  | Design an attractive website for a School using all the HTML tags and validate the application form using JavaScript. (**Note:** Have all types of validations Such as Name, Age, Date of Birth, Phone No., Email, Choosing the Gender using radio button, Choosing their hobbies using List box, Choosing their class using drop down list, Display a placeholder. | CO3 | 20 |
| (OR) | | | | |
| 6. |  | List and explain the tamper proof objects in JavaScript with examples. | CO3 | 20 |
| 7. | a. | Explain how asynchronous data transfer takes place between client and server using XMLHttpRequest object with an example. | CO4 | 10 |
|  | b. | Explain how cross origin resource sharing is handled by ajax in various browsers. | CO4 | 10 |
| (OR) | | | | |
| 8. |  | Explain the techniques for client-side data storage for an offline web application. | CO2 | 20 |
|  | | **Compulsory:** |  |  |
| 9. |  | Design an employee application with angularJS that get the number of employees from the user. Based on the input enter the employee’s salaries. Calculate mean, mode, standard deviation and display the range of salaries.   |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | Salary | < =  5000 | 5001-10000 | 10001-15000 | 15001-20000 | 20001-25000 | 25001-50000 | 50001-60000 | | Number of Employees | 7 | 7 | 7 | 10 | 3 | 6 | 5 | | % | 13.46 | 13.46 | 13.46 | 19.23 | 5.77 | 11.54 | 9.62 | | CO1 | 20 |

ALL THE BEST