

Question Paper



MANIPAL UNIVERSITY

SCHOOL OF INFORMATION SCIENCES (SOIS)
SECOND SEMESTER MASTER OF ENGINEERING - ME (MEDICAL SOFTWARE /
EMBEDDED SYSTEMS / EMBEDDED & WIRELESS TECHNOLOGY / COMPUTING
TECHNOLOGIES & VIRTUALIZATION)
DEGREE EXAMINATION - APRIL / MAY 2017
Saturday, 22, 2017
Time : 10:00 AM - 1:00 PM

Web Application Development

Marks: 100

Duration: 180 mins.

Answer all the questions.

- 1) Explain first three Normalization forms with examples (10)
- 2) What will the code below output to the console and why? (10)

```
var arr1 = "john".split("");  
var arr2 = arr1.reverse();  
var arr3 = "jones".split("");  
arr2.push(arr3);  
console.log("array 1: length=" + arr1.length +  
" last=" + arr1.slice(-1));  
console.log("array 2: length=" + arr2.length +  
" last=" + arr2.slice(-1));
```
- 3) What is a stored Procedure? What are its advantages? Write a stored procedure to add a new student to a student table. (10)
- 4) Two words are said to be Anagrams of each other if they share the same set of letters to form the respective words. Write a program in C# to determine whether two strings are anagrams of each other. (10)
- 5) Write a note on AJAX and give an example on how to make an AJAX call to access a web method. (10)
- 6) How does the relationship exist between the (10)

node, child and siblings in node-tree? Write a program to change an HTML element using DOM (Document Object Model)?

- 7) What is exception handling and explain the same using an example? Write a program in C# using the try catch block. (10)
- 8) Write a web method to verify if the user trying to log in is a valid user and display a suitable message for Successful and Unsuccessful attempt. (10)
- 9) Briefly explain three basic platforms of Webservices. (10)
- 10) Explain the elements of Service Oriented Architecture with a diagram? (10)