

Exam. Code : 206704

Subject Code : 4114

**M.Sc. Computer Science 4<sup>th</sup> Semester**  
**ADVANCED WEB TECHNOLOGIES**

**Paper : MCS-401**

Time Allowed—Three Hours] [Maximum Marks—100

**Note :—** There are **EIGHT** questions, attempt any **FIVE**.  
All questions carry equal marks.

1. (a) What is role of HTML, CSS, Java Script in Web development ? Which tools/languages are used for server side development ?  
(b) Which are two methods to submit form ? Explain advantages of each.
2. Which are different types of validation controls ? Explain each with an example.
3. What do you mean by Rich controls ? Which are various rich controls available in ASP.Net ? Explain file upload control.
4. What is master page ? How can you update information from ordinary page on master page ? Give an example.

5. Explain following with reference to execute SQL commands :
  - (a) SQL Data Reader
  - (b) ExecuteScalar( )
  - (c) ExecuteNonQuery( )
6. Which are different types of List controls available in ASP.Net ? Explain with example.
7. Which are different ways to maintain application state ?  
What is need to maintain application state ?
8. Explain following :—
  - (a) Page output caching
  - (b) SQL cache dependences.