

Exam. Code : 206704

Subject Code : 4736

M.Sc. Computer Science 4th Semester (Batch 2020-22)

MCS-401 : ADVANCED WEB TECHNOLOGIES

Time Allowed—3 Hours] [Maximum Marks—100

Note :— Attempt *five* questions in all, selecting at least *one* question from each section. The *fifth* question may be attempted from any section. All questions carry equal marks.

SECTION—A

1. Explain the different technologies for full stack web development by categorising them in client-side and server-side development. 20
2. How is the user input in a web form implemented on client as well as server side ? 20

SECTION—B

3. What is a validation control ? Explain the following validation controls for a field that specifies product quantity : required field, lies in range of 1 to 20, and is greater than items_in_stock ? 5,15
4. How are the following implemented ?
 - (a) File upload control
 - (b) File download control
 - (c) Display a calendar
 - (d) Display page views. 20

SECTION—C

5. What is a master page ? Explain the steps to create, modify and load master pages. 5,15
6. Create a connection to connect with a database and write commands to insert, update, delete records from the database. 20

SECTION—D

7. What is a data access component ? How does the .NET framework work for managing database objects ? 5,15
8. Explain the following :
 - (a) Cookies
 - (b) Session state
 - (c) SQL cache dependences
 - (d) Synchronous database commands. 20