

**Dr. Babasaheb Ambedkar Open University**  
**Term End Examination July – 2026**

|                     |                                                   |                   |                             |
|---------------------|---------------------------------------------------|-------------------|-----------------------------|
| <b>Course</b>       | <b>: BSCCS</b>                                    | <b>Date</b>       | <b>: 21/07/2026</b>         |
| <b>Subject Code</b> | <b>: BSCCS-402</b>                                | <b>Time</b>       | <b>: 03:00pm to 05:15pm</b> |
| <b>Subject Name</b> | <b>: Client Server Architecture and Interface</b> | <b>Duration</b>   | <b>: 02.15 Hours</b>        |
|                     |                                                   | <b>Max. Marks</b> | <b>: 70</b>                 |

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**Section A**

**Answer the following (Attempt any three)**

**(30)**

1. Explain Peer-to-Peer Computing with its advantages and limitations.
2. Describe the Three-Tier Client/Server Architecture with a neat diagram.
3. Explain Socket Programming in Client/Server applications.
4. Explain the ASP.NET Page Life Cycle with suitable illustrations.
5. Describe ADO.NET Architecture and explain its major components.

**Section B**

**Answer the following (Attempt any four)**

**(20)**

1. State any five characteristics of Client/Server Computing.
2. Explain the functions of Web Server and Application Server.
3. Write a short note on Middleware.
4. State any five advantages of Stored Procedures.
5. Explain the purpose of Master Pages and Themes in ASP.NET.
6. State any five advantages of ADO.NET.

**Section C**

**Part – A (Multiple Choice Questions)**

**(10)**

Q.1 Which computing model allows each computer to function as both a client and a server?

- |                            |                           |
|----------------------------|---------------------------|
| A) Mainframe Computing     | B) Peer-to-Peer Computing |
| C) Client/Server Computing | D) Cloud Computing        |

Q.2 Which server mainly delivers web pages to users through HTTP/HTTPS?

- |               |                    |
|---------------|--------------------|
| A) FTP Server | B) Database Server |
| C) Web Server | D) Mail Server     |

Q.3 Which software layer enables communication between distributed applications?

- |             |               |
|-------------|---------------|
| A) BIOS     | B) Middleware |
| C) Compiler | D) Loader     |

Q.4 Which protocol is primarily used for reliable socket communication?

- |         |        |
|---------|--------|
| A) UDP  | B) TCP |
| C) ICMP | D) ARP |

Q.5 Which database object stores SQL statements for repeated execution?

- |            |                     |
|------------|---------------------|
| A) Trigger | B) Stored Procedure |
| C) View    | D) Index            |

Q.6 Which ASP.NET file defines the common layout for multiple web pages?

- |                |                |
|----------------|----------------|
| A) Web.config  | B) Global.asax |
| C) Master Page | D) Style Sheet |

Q.7 Which ASP.NET server control is mainly used to accept user input?

- A) Label
- B) TextBox
- C) HyperLink
- D) Literal

Q.8 Which validation control ensures that a required field is not left empty?

- A) CompareValidator
- B) RangeValidator
- C) RequiredFieldValidator
- D) CustomValidator

Q.9 Which ADO.NET object is used to establish a connection with a database?

- A) DataSet
- B) SqlConnection
- C) DataTable
- D) DataView

Q.10 Which control is commonly used to provide navigation links in an ASP.NET website?

- A) TreeView
- B) Menu
- C) SiteMapPath
- D) Menu Control

**Part – B (State whether the following statements are true or false)**

**(10)**

- 1 Peer-to-peer networks allow computers to share resources directly without a dedicated server.
- 2 Middleware helps different applications communicate with each other.
- 3 Three-tier architecture separates presentation, business logic and data layers.
- 4 Socket programming enables communication between networked applications.
- 5 Stored Procedures are executed within the database server.
- 6 ASP.NET pages are processed on the server before being sent to the client.
- 7 Master Pages help maintain a consistent appearance across web pages.
- 8 Validation controls improve the accuracy of user input.
- 9 ADO.NET provides data access support for .NET applications.
- 10 Navigation controls help users move between web pages.

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