

M.Sc. Computer Application (Sem. - I) Examination November - 2025
Web Development Framework (Paper - 103)

Time: 1 Hour]

[Total Marks: 25

સૂચના : / Instructions (1) ઉપરોક્ત દર્શાવેલ વિગતો ઉત્તરવહી પર અવશ્ય લખવી. Fill up strictly the above details on your answer book (2) Answer all the questions. (3) Figures in the right indicates full marks (4) Illustrate your answer with necessary example, if required.	Seat No.: <table border="1" style="width: 100%; height: 40px; border-collapse: collapse;"> <tr> <td style="width: 16.6%;"></td> <td style="width: 16.6%;"></td> <td style="width: 16.6%;"></td> <td style="width: 16.6%;"></td> <td style="width: 16.6%;"></td> <td style="width: 16.6%;"></td> </tr> </table> Student's Signature						

Q.1 [A] Write answers of following Multiple Choice Questions (Any 4 out of 5) 04

1. In Angular, which decorator is used to define a module?
A. `@Injectable`
B. `@NgModule`
C. `@Component`
D. `@Directive`
2. In reactive forms, which class is used to represent a group of controls?
A. `FormArray`
B. `FormBuilder`
C. `FormGroup`
D. `NgForm`
3. Which Angular service is typically used to navigate programmatically?
A. `HttpClient`
B. `Router`
C. `FormBuilder`
D. `NgZone`
4. In Angular, which RxJS operator is used to transform data streams?
A. `map()`
B. `filter()`
C. `subscribe()`
D. `tap()`
5. Which npm package is commonly used for file uploads in Express.js?
A. `multer`
B. `cookie-parser`
C. `body-parser`
D. `express-session`

Q.1 [B] Write answers for the following (Any 4 out of 5) 04

1. What is the role of Angular CLI in application development?
2. What is two-way data binding in Angular?
3. What is the role of Dependency Injection (DI) in Angular services?
4. What is the purpose of the async pipe in Angular?
5. Define middleware in Express.js with one example.

Q. 2 [A] Write short notes on Angular directives: *ngIf, *ngFor, ngClass, and ngStyle with appropriate example. **05**

OR

Q.2 [A] What are Angular pipes? Explain with examples of built-in pipes and also describe custom pipes **05**

Q.2 [B] Explain how pagination is implemented in Angular using the third-party directive ngx-pagination. Provide an example **04**

Q. 3 Write answers for the following (Any 2 out of 3)

08

1. Write the steps and code required to implement Image Upload functionality in Angular.
 2. Describe how Angular handles user inputs and DOM events like click, keypress, and mouse events with examples.
 3. What is scaffolding in Express.js? How does it help in project development?
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