



Seat No. _____

HAJ-003-1083001

**M. Sc. (IT & CA) (Sem.-III) (CBCS)
(WEF-2016) Examination**

May - 2023

**CS-13 : Hybrid Mobile Applications
Development Using Web Technologies**

Faculty Code : 003

Subject Code : 1083001

Time : $2\frac{1}{2}$ Hours / Total Marks : 70

- 1 (a) Answer the following : 4
- (1) What is the full form of npm ?
 - (2) Give a full form of LESS.
 - (3) What is the extension of bootstrap design file ?
 - (4) The _____ attribute specifies that the input field is disabling.
- (b) Answer any one in brief : 2
- (1) What is use of Bootstrap ?
 - (2) Explain variable syntax in SASS, LESS and CSS.
- (c) Answer any one in detail : 3
- (1) Explain range and time type with suitable example.
 - (2) Difference between SCSS v/s LESS.
- (d) Answer any one : 5
- (1) Explain Local Storage in HTML5 with suitable example.
 - (2) Explain the features of Hybrid application.
- 2 (a) Answer the following : 4
- (1) The _____ directives repeats a set of HTML, a given number of times.
 - (2) Give a full form of MVVM.
 - (3) What is jQuery ?
 - (4) The external JavaScript file must contain the <script> tag. True or False

- (b) Answer any one in brief : 2
 (1) What is \$scope and \$rootScope ?
 (2) Explain how to declare function in jQuery with suitable code?
- (c) Answer any one in detail : 3
 (1) Explain following Directives :
 (ng-click, ng-show, ng-hide, ng-bind, and ng-model)
 (2) What is Filters ? Explain with suitable example.
- (d) Answer any one : 5
 (1) Explain MVC architecture of AngularJS.
 (2) Explain ng-submit and user-define directive in AngularJS with suitable example.
- 3** (a) Answer the following : 4
 (1) Write full form of CLI.
 (2) The main class for all the bars you might use in your app is _____.
 (3) Give the name of basic templates used in Ionic.
 (4) Explain button component.
- (b) Answer any one in brief : 2
 (1) List out types of project created in Ionic.
 (2) Explain Ionic colours.
- (c) Answer any one in detail : 3
 (1) Explain card in Ionic.
 (2) What is header in Ionic?
- (d) Answer any one : 5
 (1) Explain ActionSheet with suitable example.
 (2) Write a code to create a splash screen in Ionic.
- 4** (a) Answer the following ; 4
 (1) _____ function is used to remove last insert element from array.
 (2) The _____ function inserts one or more elements to the end of an array.
 (3) Give a full form of API _____.
 (4) The _____ function searches an array for a specific value.

- (b) Answer any one in brief : **2**
(1) What is Node.js ?
(2) Write a step to install node.js.
- (c) Answer any one in detail : **3**
(1) Explain file_get_contents() function with suitable example.
(2) Explain Associative Array of PHP with suitable code.
- (d) Answer any one : **5**
(1) Explain json_encode & json_decode function with suitable code.
(2) Write a note on Architecture of node. js.
- 5** (a) Answer the following : **4**
(1) Which command is used to create new local repository into Git ?
(2) What is Git ?
(3) Which command is used to remove android platform in ionic application ?
(4) Which command is used to add android in Cordova application ?
- (b) Answer any one in brief : **2**
(1) What is GIT push and pull operations ?
(2) Explain status command in GIT.
- (c) Answer any one in detail : **3**
(1) Explain branch command in GIT.
(2) Explain importance of GIT in development of applications.
- (d) Answer any one : **5**
(1) Write steps to build android app and publishing it on play store.
(2) Explain Ionic-Cordova media using example.
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