

1. A practical consists of two Questions:  
Q1 consists of 20 marks.  
Q2 consists of 10 marks. (Attempt any one)
2. Viva will be taken at the time of practical as well as after the practical if required.
3. The figures to the right indicate full marks.
4. Create a file with the name in the folder “MCA\_SEM\_I\_2021” on the desktop which will have code as well as output a screenshot in it and upload the same file in the Google classroom.
5. File Name must be “Roll\_number\_\_Name of the student\_subject name\_date)  
(eg.65\_XYZ\_ADBMS\_16042021 )
6. Single file(PDF format only) must be submitted as an assignment in Google Classroom by each student.
7. Write a question in the starting of the file and then give an answer.
8. External Examiners may tell you to share your screen at any given movement.

Roll Nos	Practicals to Perform
1	SET 1
2	SET 2
3	SET 3
4	SET 4
5	SET 5
6	SET 6
7	SET 7
8	SET 8
9	SET 9
10	SET 10
11	SET 11
12	SET 12
13	SET 13
14	SET 14
15	SET 15
16	SET 16

<b>17</b>	<b>SET 17</b>
<b>18</b>	<b>SET 18</b>
<b>19</b>	<b>SET 19</b>
<b>20</b>	<b>SET 20</b>
<b>21</b>	<b>SET 21</b>
<b>22</b>	<b>SET 22</b>
<b>23</b>	<b>SET 23</b>
<b>24</b>	<b>SET 24</b>
<b>25</b>	<b>SET 25</b>
<b>26</b>	<b>SET 26</b>
<b>27</b>	<b>SET 27</b>
<b>28</b>	<b>SET 28</b>
<b>29</b>	<b>SET 29</b>
<b>30</b>	<b>SET 30</b>
<b>31</b>	<b>SET 31</b>
<b>32</b>	<b>SET 32</b>
<b>33</b>	<b>SET 33</b>
<b>34</b>	<b>SET 34</b>
<b>35</b>	<b>SET 35</b>
<b>36</b>	<b>SET 8</b>
<b>37</b>	<b>SET 9</b>
<b>38</b>	<b>SET 10</b>
<b>39</b>	<b>SET 11</b>
<b>40</b>	<b>SET 12</b>
<b>41</b>	<b>SET 13</b>
<b>42</b>	<b>SET 14</b>
<b>43</b>	<b>SET 15</b>

<b>44</b>	<b>SET 16</b>
<b>45</b>	<b>SET 17</b>
<b>46</b>	<b>SET 18</b>
<b>47</b>	<b>SET 19</b>
<b>48</b>	<b>SET 20</b>
<b>49</b>	<b>SET 21</b>
<b>50</b>	<b>SET 22</b>
<b>51</b>	<b>SET 23</b>
<b>52</b>	<b>SET 24</b>
<b>53</b>	<b>SET 25</b>
<b>54</b>	<b>SET 26</b>
<b>55</b>	<b>SET 27</b>
<b>56</b>	<b>SET 28</b>
<b>57</b>	<b>SET 29</b>
<b>58</b>	<b>SET 30</b>
<b>59</b>	<b>SET 31</b>
<b>60</b>	<b>SET 32</b>
<b>61</b>	<b>SET 33</b>
<b>62</b>	<b>SET 34</b>
<b>63</b>	<b>SET 35</b>

**SET 1**

1. Write a program using Controllers & \$scope objects to find the sum of the elements of an array. [20]
2. Write a program to Print the given pattern(REPL) [10]  
5 4 3 2 1  
4 3 2 1  
3 2 1  
2 1  
1

**OR**

2. Create functions to sort and search for a string in an array of strings .Register and trigger these functions using events.

**SET 2**

1. Create a Currency Converter Node.js Module with functions to convert currency from dollar to Rupees and vice versa. [20]
2. Write a program using Controllers & \$scope object to find the sum of two numbers entered by the user. [10]

**OR**

2. Create an angular JS application to calculate the bonus on sales made by an employee.Accept the amount of sales from the user.
  1. upto 1000 —> No bonus (0 bonus)
  2. 1000-5000 —> 5% bonus on the total sale.
  3. sale >5000 —>10 % bonus on the total sale

**SET 3**

1. Create functions to find the sum of odd elements and even elements separately of an array. Register and trigger these functions using events. [20]
2. Create SPA with two pages of content, home and contact. Use routing to swap between them. [10]

**OR**

2. Create a list of the latest mobile phone brands as a member to the scope object. Add the items entered by the user into the same list by calling "AddItem" method to the scope.

**SET 4**

1. Using the file Handling create the copy of an already existing file. [20]
2. Increment the Count value using all the Keyboard Directives. [10]

**OR**

2. Demonstrate the use of any 5 filters in AngularJs.

**SET 5**

1. Create an application to establish a connection with the MySQL database and perform basic database operations on it(employee db consisting empid,name,address, salary),insert 10 records, update a particular employee's record. [20]
2. Increment the Count value using all the Mouse Directives. [10]

**OR**

2. Create SPA with two pages of content for a Bookstore. Use routing to swap between them.

**SET 6**

1. Create a triangle module with functions to find the type of triangle(scalene, isosceles or equilateral) and its area. [20]
2. Create a SPA with two pages on the Grocery Store. [10]

**OR**

2. Create a angular JS application to calculate the telephone bill based on the following conditions. Accept the number of calls from user. :

1. (0-200) first 200 calls are free

2. (200-500) Calls between 200 to 500 will be charged 1 /Call.

3. (500+) In this case first 200 call free (200-500) 1re/call and (500+) will be 2/call

4. 200 is rental in the final bill

For Example :600 calls will be calculated as  $(200*0 + 300*1 + 100*2 + 200) = 700$  (total bill)

**SET 7**

- 1.Create an application to demonstrate any two Node.js built in modules [20]
2. Demonstrate the use of Uppercase, Lowercase , Currency and Number Formatting Filters. [10]

**OR**

2. Demonstrate the use of ng-pattern,ng-required,ng-minlength and mg-maxlength validation directives.

**SET 8**

- 1.Write a program to print information about the HTTP module(use any 3 methods).[20]
2. Demonstrate the use of ng-style directive. [10]

**OR**

2. Create an angular JS application to accept student details like Name,class, rollno and marks in 5 subjects. Calculate the Total and average marks and display a Message "FAILED" if the student has secured less than 40% otherwise "PASSED"

**SET 9**

1. Using File Handling demonstrate all basic file operations(Create, write, read, delete)[20]
2. Create an Angular JS application to accept a number from the user and display whether it is prime number or not. [10]

**OR**

2. Create a function to sort an array using bubble sort.Register and trigger this function using events.

**SET 10**

- 1.Create a HTTP Server and serve a HTML and CSV Files. [20]
- 2.Create an Array to store the information of 5 students(rollno,name,age,branch) and apply order by filter. [10]

**OR**

2. Create an angular JS application which will print prime numbers till 100,

**SET 11**

- 1.Create temperature Convertor Node.js Module with functions to convert celsius to fahrenheit and vice versa. [20]
- 2.Create a registration form for an entrance exam, apply validation and display the entered contents on submit. [10]

**OR**

2. Demonstrate the use of ng-model,ng-repeat and ng-init directives

**SET 12**

- 1.Write a node js program to Print the table of a given number(REPL) [20]
- 2.Create a custom directive and apply the restriction for invoking it by only Element Name. [10]

**OR**

2. Create a SPA with two pages on the Airline reservation system.

**SET 13**

- 1.Create functions to sort and search for an element in a character array.Register and trigger these functions using events. [20]
- 2.Demonstrate the use of ng-init,ng-model,ng-app and ng-repeat. [10]

**OR**

2. Create a form for an technical event registration and demonstrate the use of ng-model-options directive.

**SET 14**

- 1.Write a program to demonstrate at least three functions of the Node js timer module.[20]
- 2.Create a registration form for Admission, apply validations and display the entered contents and a message "Registration Done" on submit. [10]

**OR**

2. Create a form and demonstrate the use of any 3 form and input states.

**SET 15**

1. Create a HTTP Server and stream a video file using piping. [20]
2. Create a SPA with two pages, login and signup. Use routing to swap between them. [10]

**OR**

2. Create an angularjs application using controller and scope. Create an array of employee objects(name,dept and salary) (atleast 5) as a member in the controller scope and display this information using ng-repeat as a bulleted list.

**SET 16**

1. Create an application to establish a connection with the MySQL database and perform basic database operations on it(Book db consisting bookid,title,Author, price, quantity) , insert 10 records, update a record. [20]
2. Create an angularjs application using controller and scope. Take an Item from the user in the textbox and add the item in the list and display the list. [10]

**OR**

2. Accept a number from the user and find whether it is even or odd using custom validation.

**SET 17**

1. Create a form to accept student details such as Name,Gender,DOB,Address,Contact No,Class, Dept, College Etc. and demonstrate the use of any 2 validation directives and CSS classes. [20]
2. Write a program to Print the given pattern(REPL)  
5 5 5 5 5  
4 4 4 4  
3 3 3  
2 2  
1

**OR**

2. Demonstrate the use of Date , LimitTo and JSON filters. [10]

**SET 18**

1. Write a program to print information about the Node Js OS module(use any 5 methods). [20]
2. Create a Railway reservation form, Validate and display a message "Your Tickets are Reserved" on submission. [10]

**OR**

2. Demonstrate the use of any 5 filters in Angular Js.

#### **SET 19**

1. Print "Welcome" every 500 milliseconds using the Timer Module. The message should be printed exactly 10 times.

[20]

2. Create a form to accept student details such as Name, Gender, DOB, Address, Contact No, Class, Dept, College Etc. and demonstrate the use of any 2 validation directives and CSS classes. [10]

**OR**

2. Create a Railway reservation form, Validate and display a message "Your Tickets are Reserved" on submission.

#### **SET 20**

1. Create a rectangle module with functions to find the area and perimeter of a rectangle and use it. [20]

2. Accept a number from the user and find whether it is even or odd using custom validation. [10]

**OR**

2. Create an angularjs application using controller and scope. Take an Item from the user in the textbox and add the item in the list and display the list.

#### **SET 21**

1. Create an application to demonstrate various Node.js Events in event emitter class. [20]

2. Create an angularjs application using controller and scope. Create an array of employee objects (name, dept and salary) (atleast 5) as a member in the controller scope and display this information using ng-repeat as a bulleted list. [10]

**OR**

2. Create a SPA with two pages, login and signup. Use routing to swap between them.

#### **SET 22**

1. Using File Handling demonstrate all basic file operations ( write, read) [20]

2. Create a form and demonstrate the use of any 3 form and input states. [10]

**OR**

2. Create a registration form for Admission, apply validations and display the entered contents and a message "Registration Done" on submit.

#### **SET 23**

1. Create a HTTP Server and serve JSON and PDF Files. [20]

2. Create a form for an technical event registration and demonstrate the use of ng-model-options directive. [10]

**OR**

2. Demonstrate the use of ng-init, ng-model, ng-app and ng-repeat.

#### **SET 24**

1. Write a program to print information about the Node Js Path module (use any 3 methods). [20]



2. Create a SPA with two pages on the Airline reservation system. [10]

**OR**

2. Create a custom directive and apply the restriction for invoking it by only Element Name.

#### **SET 25**

1. Develop 3 HTML Web Pages for Library home page (write about issue & return), books info, contact us. Create a server and render these pages using Routing. [20]

2. Demonstrate the use of ng-model, ng-repeat and ng-init directives [10]

**OR**

2. Create a registration form for an entrance exam, apply validation and display the entered contents on submit.

#### **SET 26**

1. Create an application to establish a connection with the MySQL database and perform basic database operations on it (Movies db consisting id, title, releasedate), insert 10 records, delete movie records with releasedate before year 2000. [20]

2. Create an angular JS application which will print prime numbers till 100, [10]

**OR**

2. Create an Array to store the information of 5 students (rollno, name, age, branch) and apply order by filter

#### **SET 27**

1. Create a HTTP Server and stream an audio file using piping. [20]

2. Create a function to sort an array using bubble sort. Register and trigger this function using events. [10]

**OR**

2. Create an Angular JS application to accept a number from the user and display whether it is prime number or not.

#### **SET 28**

1. create a Calculator Node.js Module with functions add, subtract and multiply, Divide. And use the Calculator module in another Node.js file. [20]

2. Create an angular JS application to accept student details like Name, class, rollno and marks in 5 subjects. Calculate the Total and average marks and display a Message "FAILED" if the student has secured less than 40% otherwise "PASSED" [10]

**OR**

2. Demonstrate the use of ng-style directive.

#### **SET 29**

1. Create functions to reverse and search for an element in an array. Register and trigger these functions using events. [20]

2. Demonstrate the use of ng-pattern, ng-required, ng-minlength and ng-maxlength validation directives. [10]

**OR**

2. Demonstrate the use of Uppercase, Lowercase , Currency and Number Formatting Filters.

### SET 30

1. Using File Handling demonstrate all basic file operations (write, read, delete). [20]
2. Create a angular JS application to calculate the telephone bill based on the following conditions. Accept the number of calls from user. : [10]

1. (0-200) first 200 calls are free

2. (200-500) Calls between 200 to 500 will be charged 1 /Call.

3. (500+) In this case first 200 call free (200-500) 1re/call and (500+) will be 2/call

4. 200 is rental in the final bill

For Example :600 calls will be calculated as  $(200*0 + 300*1 + 100*2 + 200) = 700$   
(total bill)

**OR**

2. Create a SPA with two pages on the Grocery Store.

### SET 31

1. Create an application to establish a connection with the MySQL database and perform basic database operations on it create employee table consisting empid,name, designation department and Salary),insert 5 records, update a particular employee's record

Database Name:DBEMP

Table Name: employee [20]

2. Create SPA with two pages of content for a Bookstore. Use routing to swap between them. [10]

**OR**

2. Increment the Count value using all the Mouse Directives.

### SET 32

1. Write a program to Print the given pattern(REPL) [20]

8 8 8 8

6 6 6

4 4

2

2. Demonstrate the use of any 5 filters in Angular Js. [10]

**OR**

2. Increment the Count value using all the Keyboard Directives.

**SET 33**

1. Write a program to print [20]  
a)current date, month, year, hour, minutes & seconds in Node.js  
b)To print Fibonacci numbers upto 50.
2. Create a list of latest mobile phone brands as a member to the scope object. Add the items entered by the user into the same list by calling "AddItem" method to the scope. [10]

**OR**

2. Create SPA with two pages of content, home and contact. Use routing to swap between them.

**SET 34**

1. Create a custom cylinder module with functions to find the surface area and volume of a cylinder and use it. [20]
2. Create an angular JS application to calculate the bonus on sales made by an employee. Accept the amount of sales from the user. [10]  
1. upto 1000 → No bonus (0 bonus)  
2. 1000-5000 → 5% bonus on the total sale.  
3. sale >5000 → 10 % bonus on the total sale

**OR**

2. Write a program using Controllers & \$scope object to find the sum of two numbers entered by the user.

**SET 35**

1. Create functions to sort and search for a string in an array of strings .Register and trigger these functions using events. [20]
2. Create SPA with two pages of content for a mobile store. Use routing to swap between them. [10]

**OR**

2. Write a program using Controllers & \$scope object to find the sum of the elements of an array.