LAB - 12

→ Q1. .bib file

```
@ article {Taboda2006,
        author = {Taboda. Maite},
        journal = {Journal of Pragmatics},
        pages = {567 - - 592},
        title = {Discourse markers as signals (or not) of relations},
        volume = {38},
        year = {2006}
}
@ article {JJ2006,
        author = {John , Norie},
        title = {The hunting handicap : costly signaling in human
                 Strategies},
        journal = {Behavioural ecology and Sociobiology},
        volume = {50},
        pages = {9 - 19},
        year = {2008}
}
@ article {Cain 2012,
        author = {Cain. Abel},
        title = {Sets and relations},
        volume = {2},
        pages = {255},
        year = {2012}
}
@ article {K2003,
        author = {Kate. Langley},
        title = {Hobbit : Battle of five Adams},
        volume = {6},
        pages = {585},
        year = {2003}
}
@ article {MJ2015,
        author = {Mary, Jane},
        title = {A quick take on today's world},
        volume = {7},
        pages = {295},
        year = {2015}
}
```

Q1) Generate bibliography for document [illegible] text in author year format. Ensure that first names of authors appear as initials in document.

A1) \documentclass{article}
\usepackage{natbib}
\begin{document}
\cite{Taboda2006}
\cite{JJ2006}
\bibliographystyle{abbrvnat}
\bibliography{201}
\end{document}

Q2) Generate bibliography for document and refer to them in text in numbering format. Ensure that references in bibliography should appear in order that citations appear in document.

A2) \documentclass{article}
\begin{document}
According to \cite{Taboda2006}, it is proven in \cite{JJ2006}
\bibliographystyle{plain}
\bibliography{201}
\end{document}

Q3) Create a presentation using beamer package and a bib file with 5 bibliographic entries. Cite two of them in the text and observe difference in bibliography section with and without using \nocite command while printing bibliography. Generate bibliography for presentation using \bibliography command and then using \printbibliography command.

A3) \documentclass{beamer}
\usepackage[backend=bibtex]{biblatex}
\bibliography{201}
\begin{document}
\begin{frame}
According to \cite{KL2003}, Azog defeats the Dwarven Kingdom and Elves but in \cite{MJ2015} \nocite{JJ2006}
\end{frame}
\begin{frame}[allowframebreak]
\frametitle{References}
\nocite{*}
\printbibliography
\end{frame}
\end{document}

Q4) Create a document in LaTeX using IEEE template. Include table, figure, eqns, algorithm and references in document. Span figure and table to more than one column in a page of the document

Ans)
```
\documentclass{IEEEtran}
\usepackage{algorithm2e}
\usepackage{graphicx}

\begin{document}
    \bibliographystyle{plain}
    \bibliography{ref}
    \notice{*}
    \vspace{2cm}
    \begin{algorithm}
    \KwData{ A set $C = \{c_1, c_2, \ldots, c_n\}$ of denominations of coins, where $c_i > c_2 > \ldots > c_k$ and a +ve number $n$}
    \KwResult{A list of coins $d_1, d_2, \ldots, d_k$ such that $\sum_{i=1}^{k} d_i = n$ and $k$ is minimized}
    $C \leftarrow \emptyset$;
    \For{$i \leftarrow 1$ to $n$}{
        \while{$n \geq c_i$}{
            $C \leftarrow C \cup \{c_i\}$;
            $n \leftarrow n - c_i$;
        }
    }
    \Return{C};
    \caption{\textsc{change} Makes change using smallest no. of coins}
    \end{algorithm}
    \vspace{2cm}
    \begin{figure*}
        \includegraphics[width=0.5\textwidth, height=12cm]{dog.jpeg}
    \end{figure*}
    \begin{tabular}{| c c c c |}
        \hline
        Col1 & Col2 & Col3 \\[0.5ex]
        \hline\hline
        1 & 6 & 87837 & 787 \\
        \hline
        2 & 7 & 78 & 5415 \\
        \hline
    \end{tabular}
\end{document}
```

LAB - 9 (Angular JS)

1) Develop an Angular JS application to display text CSE branch, MIT Manipal with H3 tag.

A)

```
<!DOCTYPE html>
<html lang = "en">
<head>
    <meta charset = "UTF-8" >
    <meta http-equiv - "x -UA-Compatible" content = "IE=edge">
    <meta name = "viewport" content = "width = device-width,
      initial-scale = 1.0">
    <script src = "node_modules/angular/angular.min.js"></script>
    <title> Q1 Basic H3 </title>
</head>
<body>
<div ng-app = "myApp" ng-controller = "myController">
    <h3> {{ data }} </h3>
</div>
<script>
    var myApp = angular.module("myApp", []);
    var myController = function ($scope, $routeParams) {
      $scope.data = "CSE branch, MIT Manipal";}
    myApp.controller("myController", ['$scope', myController]);
</script>
</body>
</html>
```

Q2) Develop an angular JS Application which has 2 text boxes for First Name and Last Name.

A2)

```
<!DOCTYPE html>
<html lang = "en">
<head>
    <meta charset = "UTF-8">
    <meta http-equiv = "X-UA-Compatible" content = "IE=edge">
    <meta http-equiv = "X viewport" content = "width = device-
    width, initial-scale = 1.0">
    <script src = "node_modules\angular\angular.min.js"></script>
    <title> Q2 Name </title>
</head>
<body>
    <div ng-app = "myApp" ng-controller = "myController">
        <input type = "text" placeholder = "enter first name" ng-model
        = "user.fName">    
        <input type = "text" placeholder = "enter last name" ng-model
        = "user.fName">    
        <br> <br>
        {{user.fName}}   {{user.lName}}
    </div>
    <script>
        var myApp = angular.module("myApp", []);
        myApp.controller('myController', function ($scope) {
        });
    </script>
</body>
</html>
```

Q3) Develop an Angular JS application which has 2 textboxes. First textbox is for price and second one for quantity

A3)
```
<!DOCTYPE html>
<html lang = "en">
<head>
<meta charset = "UTF-8">
<meta http-equiv = "X-UA-Compatible" content = "IE=edge">
<meta name = "viewport" content = "width = device-width, initial
-scale = 1.0">
<script src = "node_modules/angular/angular.min.js"></script>
<title> Q3 Multiplication </title>
</head>
<body>
<div ng-app = "myApp" ng-controller = "myController">
<input type = "text" placeholder = "Enter Price" ng-model = "app
price">    
<input type = "text" placeholder = "enter quantity" ng-model
= "app.quantity">    
<br> <br>
{{ app.price * app.quantity }}
</div>
<script>
var myApp = angular.module("myApp", []);
myApp.controller('myController', function ($scope) {
});
</script>
</body>
</html>
```

Q4) Develop an Angular JS app which has an object names months. Store all months in months object.

A4)

```
<!DOCTYPE html>
<html lang = "en">
<head>
    <meta charset = "UTF-8">
    <meta http-equiv = "X-UA-Compatible" content = "IE-edge">
    <meta name = "viewport" content = "width = device-width,
     initial-scale = 1.0">
    <script src = "node_modules/angular/angular.min.js"></
    </script>
    <title> Q4 List Box </title>
</head>
<body>
  <div ng-app = "myApp" ng-controller = "myController">
    <select ng-model = "monthlist">
      <option ng-repeat = "x in monthslist"> {{x}} </option>
    </select>
  </div>
  <script>
    var myApp = angular.module("myApp", []);
    myApp.controller('myController', function($scope){
      $scope.monthlist = ["January", "Feb", "Mar", "Apr",
    "May", "Jun", "Jul", "Aug", "Sep", "Oct", "Nov", "Dec"];
    });
  </script>
</body>
</html>
```

Q5) Display a string "QwERTy" in AngularJS in all uppercase and lowercase using filters.

A5)

```
<!DOCTYPE html>
<html lang="en">
<head>
<meta charset="UTF-8">
<meta http-equiv="X-UA-Compatible" content="IE-edge">
<meta name="viewport" content="width=device-width, initial
-scale=1.0">
<script src="node_modules/angular/angular.min.js"></script>
<title>Q5 String Filter</title>
</head>
<body>
<div ng-app="myApp" ng-controller="myController">
    Lowercase: {{word | lowercase}} <br>
    Uppercase: {{word | uppercase}}
</div>

<script>
var myApp = angular.module("myApp", []);
myApp.controller('myController', function($scope){
    $scope.word = "QwERTy";
});
</script>
</body>
</html>
```

Q6) Display value of PI (2217) to 2 and 4 decimal places. Use filters.

A6)

```
<!DOCTYPE HTML>
<html lang = "en" >
 <head>
  <meta charset = "UTF-8">
  <meta http-equiv = "x-UA-Compatible" content = "IE=edge">
  <meta name = "viewport" content = "width = device-width,
   initial-scale = 1.0" >
  <script src = "node_modules/angular/angular.min.js"></script>
  <title> Q6 Decimal Filter </title>
 </head>
 <body>
  <div ng-app = "myApp" ng-controller = "myController" >
     2 Decimal Places : {{2222/7) | number : 2}} <br>
     4 Decimal Places : {{2222/7) | number : 4}}
  </div>
  <script>
    var myApp = angular.module("myApp", []);
    myApp.controller('myController', function ($scope) {
    });
  </script>
 </body>
</html>
```

Q7) Display a JSON expression in JSON format. Use filters.

A7)

```
<!DOCTYPE html>
<html lang = "en">
<head>
  <meta charset = "UTF-8">
  <meta http-equiv = "X-UA-Compatible" content = "IE=edge">
  <meta name = "viewport" content = "width=device-width,
   initial-scale=1.0">
  <script src = "node_modules/angular/angular.min.js"></script>
  <title> Q7 JSON Filter </title>
</head>
<body>
  <div ng-app = "myApp" ng-controller = "myController">
        {{ jsonExpr | json }}
  </div>
  <script>
    var myApp = angular.module("myApp", []);
    myApp.controller('myController', function($scope){
      $scope.jsonExpr = {FirstName: "Lakshay", LastName: "Saxena"
       , Uni: "MIT, Manipal"};
    });
  </script>
</body>
</html>
```