

**MES Garware College of Commerce, Pune, India (Autonomous)**

**T. Y. BBA-CA(NEP PATTERN 2023-24) SEMESTER – V**

**LAB COURSES PRACTICAL SLIPS**

<b>Sr. No.</b>	<b>Course Code</b>	<b>Course Title</b>	<b>Credits</b>	<b>Page No.</b>
1	<a href="#"><u>23BA5-A073</u></a>	<a href="#"><u>Lab Based on Core Java</u></a>	2	2
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**MES Garware College Of Commerce**

**T.Y.B.B.A.(C.A.) Semester-V**

**Lab Course:** Lab Based on Core Java

**Course Code:** 23BA5-A073

Credits: 2

Marks:50

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**Q.1 Core Java:**

A) Write a 'java' program to copy only non-numeric data from one file to another file.

[10]

B) Write a 'java' program to display characters from 'A' to 'Z'.

[20]

**Q.2 Viva**

[10]

**Q.3 Lab Book**

[10]

----- X -----

**MES Garware College Of Commerce**

**T.Y.B.B.A.(C.A.) Semester-V**

**Lab Course:** Lab Based on Core Java

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**Q.1 Core Java:**

A) Design a screen in Java to handle the Mouse Events such as MOUSE\_MOVED and MOUSE\_CLICK and display the position of the Mouse\_Click in a TextField. (Use Swings) [20]

B) Write a java program to display all the vowels from a given string. [10]

**Q.2 Viva** [10]

**Q.3 Lab Book** [10]

----- X -----

**MES Garware College Of Commerce**

**T.Y.B.B.A.(C.A.) Semester-V**

**Lab Course:** Lab Based on Core Java

**Course Code:** 23BA5-A073

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Marks:50

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**Q.1 Core Java:**

- A)** Define an abstract class Shape with abstract methods area () and volume (). Derive abstract class Shape into two classes Cone and Cylinder. Write a java Program to calculate area and volume of Cone and Cylinder.(Use Super Keyword.) **[20]**
- B)** Write a 'java' program to check whether given number is Armstrong or not. (Use static keyword) **[10]**

**Q.2 Viva** **[10]**

**Q.3 Lab Book** **[10]**

----- X -----

**MES Garware College Of Commerce**  
**T.Y.B.B.A.(C.A.) Semester-V**  
**Lab Course: Lab Based on Core Java**  
**Course Code: 23BA5-A073**

Credits: 2

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**Q.1 Core Java:**

**A)** Write a java program using Applet to implement a simple arithmetic calculator/ [20]



**B)** Write a java program to display alternate character from a given string. [10]

**Q.2 Viva** [10]

**Q.3 Lab Book** [10]

----- X -----

**MES Garware College Of Commerce**

**T.Y.B.B.A.(C.A.) Semester-V**

**Lab Course:** Lab Based on Core Java

**Course Code:** 23BA5-A073

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**Q.1 Core Java:**

**A)** Write a java program to accept list of file names through command line. Delete the files having extension .txt. Display name, location and size of remaining files. **[20]**

**B)** Write a java program to display following pattern: **[10]**

```
5
4 5
3 4 5
2 3 4 5
1 2 3 4 5
```

**Q.2 Viva** **[10]**

**Q.3 Lab Book** **[10]**

----- X -----

**MES Garware College Of Commerce**

**T.Y.B.B.A.(C.A.) Semester-V**

**Lab Course:** Lab Based on Core Java

**Course Code:** 23BA5-A073

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**Q.1 Core Java:**

**A)** Write a java program to display transpose of a given matrix. **[20]**

**B)** Write a java program to accept a number from user, if it zero then throw user defined Exception “Number Is Zero”, otherwise calculate the sum of first and last digit of that number. (Use static keyword). **[10]**

**Q.2 Viva** **[10]**

**Q.3 Lab Book** **[10]**

----- X -----

**MES Garware College Of Commerce**

**T.Y.B.B.A.(C.A.) Semester-V**

**Lab Course:** Lab Based on Core Java

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**Q.1 Core Java:**

- A) Write a java program to accept details of 'n' cricket player (pid, pname, totalRuns, InningsPlayed, NotOuttimes). Calculate the average of all the players. Display the details of player having maximum average. (Use Array of Object) **[20]**
- B) Write a java AWT program to display Label with text "Dr. D Y Patil College", background color Red and font size 20 on the frame. **[10]**

**Q.2 Viva** **[10]**

**Q.3 Lab Book** **[10]**

----- X -----



**MES Garware College Of Commerce**

**T.Y.B.B.A.(C.A.) Semester-V**

**Lab Course:** Lab Based on Core Java

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**Q.1 Core Java:**

**A)** Write a java program to display files having extension .txt from a given directory. **[20]**

**B)** Define an Interface Shape with abstract method area(). Write a java program to calculate an area of Circle and Sphere.(use final keyword) **[10]**

**Q.2 Viva** **[10]**

**Q.3 Lab Book** **[10]**

----- X -----

**MES Garware College Of Commerce**

**T.Y.B.B.A.(C.A.) Semester-V**

**Lab Course:** Lab Based on Core Java

**Course Code:** 23BA5-A073

Credits: 2

Marks:50

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**Q.1 Core Java:**

- A) Write a java program to validate PAN number and Mobile Number. If it is invalid then throw user defined Exception “Invalid Data”, otherwise display it. **[20]**
- B) Write a java Program to display Fibonacci series of n nos. **[10]**

**Q.2 Viva** **[10]**

**Q.3 Lab Book** **[10]**

----- X -----

**MES Garware College Of Commerce**  
**T.Y.B.B.A.(C.A.) Semester-V**  
**Lab Course: Lab Based on Core Java**  
**Course Code: 23BA5-A073**

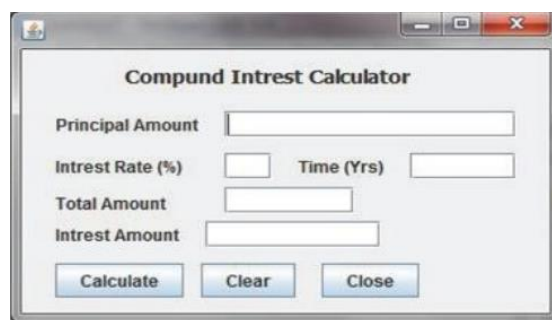
Credits: 2

Marks:50

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**Q.1 Core Java:**

A) Write a java program for the following: Use Swings [20]



B) Write a java program to count the frequency of each character in a given string. [10]

Q.2 Viva [10]

Q.3 Lab Book [10]

----- X -----

**MES Garware College Of Commerce**

**T.Y.B.B.A.(C.A.) Semester-V**

**Lab Course: Lab Based on Core Java**

**Course Code: 23BA5-A073**

Credits: 2

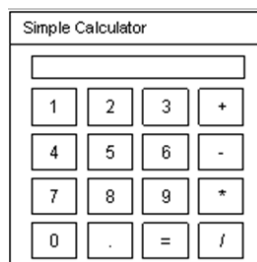
Marks:50

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**Q.1 Core Java:**

**A)** Create a calculator with functionality in an Applet.

**[20]**



**B)** Write a menu driven java program using command line arguments for the following:

1. Addition
2. Subtraction
3. Multiplication
4. Division.

**[10]**

**Q.2 Viva**

**[10]**

**Q.3 Lab Book**

**[10]**

----- X -----

**MES Garware College Of Commerce**

**T.Y.B.B.A.(C.A.) Semester-V**

**Lab Course:** Lab Based on Core Java

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Marks:50

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**Q.1 Core Java:**

**A)** Write a java program to display multiplication table of a given number into the List box by clicking on button. **[20]**

**B)** Write a java program to display each String in reverse order from a String array. **[10]**

**Q.2 Viva** **[10]**

**Q.3 Lab Book** **[10]**

----- X -----

**MES Garware College Of Commerce**

**T.Y.B.B.A.(C.A.) Semester-V**

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**Q.1 Core Java:**

- A)** Write a java program that asks the user name, and then greets the user by name. Before outputting the user's name, convert it to upper case letters. For example, if the user's name is Raj, then the program should respond "Hello, RAJ, nice to meet you!". **[20]**
- B)** Write a java program to accept 'n' integers from the user & store them in an ArrayList collection. Display the elements of ArrayList collection in reverse order. **[10]**

**Q.2 Viva** **[10]**

**Q.3 Lab Book** **[10]**

----- X -----

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**T.Y.B.B.A.(C.A.) Semester-V**

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Marks:50

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**Q.1 Core Java:**

**A)** Write a java AWT program to accept the details of employee (Eno, EName, Sal) and display it on next frame using appropriate event. **[20]**

**B)** Write a Java program to calculate power of a number using recursion. **[10]**

**Q.2 Viva** **[10]**

**Q.3 Lab Book** **[10]**

----- X -----

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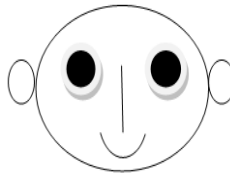
Credits: 2

Marks:50

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**Q.1 Core Java:**

**A)** Write an applet application to display smiley face. **[20]**



**B)** Write a java program to search given name into the array, if it is found then display. **[10]**

**Q.2 Viva** **[10]**

**Q.3 Lab Book** **[10]**

----- X -----



**MES Garware College Of Commerce**

**T.Y.B.B.A.(C.A.) Semester-V**

**Lab Course:** Lab Based on Core Java

**Course Code:** 23BA5-A073

Credits: 2

Marks:50

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**Q.1 Core Java:**

A) Write a java program to accept n employee names from user. Sort them in ascending order and Display them.(Use array of object and Static keyword) **[20]**

B) Write a java program to calculate sum of digits of a given number using recursion. **[10]**

**Q.2 Viva** **[10]**

**Q.3 Lab Book** **[10]**

----- X -----

**MES Garware College Of Commerce**

**T.Y.B.B.A.(C.A.) Semester-V**

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Marks:50

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**Q.1 Core Java:**

- A) Define a class Product (pid, pname, price, qty). Write a function to accept the product details, display it and calculate total amount. (use array of Objects) **[20]**
- B) Write a java Program to accept 'n' no's through command line and store only armstrong no's into the array and display that array. **[10]**

**Q.2 Viva** **[10]**

**Q.3 Lab Book** **[10]**

----- X -----

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**Q.1 Core Java:**

- A) Write a java program to copy the data from one file into another file, while copying change the case of characters in target file and replaces all digits by ‘\*’ symbol. **[20]**
- B) Write a Java program to calculate area of Circle, Triangle & Rectangle.(Use Method Overloading) **[10]**

**Q.2 Viva** **[10]**

**Q.3 Lab Book** **[10]**

----- X -----

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**T.Y.B.B.A.(C.A.) Semester-V**

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Marks:50

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**Q.1 Core Java:**

A) Create an Applet that displays the x and y position of the cursor movement using Mouse and Keyboard. (Use appropriate listener) [20]

B) Write a Java program to display Fibonacci series using function. [10]

**Q.2 Viva** [10]

**Q.3 Lab Book** [10]

----- X -----

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**Q.1 Core Java:**

**A)** Construct a Linked List containing name: CPP, Java, Python and PHP. Then extend your java program to do the following: i. Display the contents of the List using an Iterator ii. Display the contents of the List in reverse order using a ListIterator. **[20]**

**B)** Write a java program using AWT to create a Frame with title “TYBBACA”, background color RED. If user clicks on close button then frame should close. **[10]**

**Q.2 Viva** **[10]**

**Q.3 Lab Book** **[10]**

----- X -----

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**Q.1 Core Java:**

**A)** Create a hashtable containing city name & STD code. Display the details of the hashtable.  
Also search for a specific city and display STD code of that city. **[20]**

**B)** Write a java program to display each word from a file in reverse order. **[10]**

**Q.2 Viva** **[10]**

**Q.3 Lab Book** **[10]**

----- X -----

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Marks:50

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**Q.1 Core Java:**

**A) Write a java program for the following:** [20]

1. To create a file.
2. To rename a file.
3. To delete a file.
4. To display path of a file.

**B) Write a Java program to calculate factorial of a number using recursion.** [10]

**Q.2 Viva** [10]

**Q.3 Lab Book** [10]

----- X -----

**Q.1 Core Java:**

A) Write a java program to design following Frame using Swing. **[20]**



B) Write a java program to check whether given file is hidden or not. If not then display its path, otherwise display appropriate message. **[10]**

**Q.2 Viva** **[10]**

**Q.3 Lab Book** **[10]**

----- X -----



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Marks:50

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**Q.1 Core Java:**

**A)** Create a package named Series having three different classes to print series: i. Fibonacci series ii. Cube of numbers iii. Square of numbers. Write a java program to generate 'n' terms of the above series. **[20]**

**B)** Write a java program to count number of digits, spaces and characters from a file. **[10]**

**Q.2 Viva** **[10]**

**Q.3 Lab Book** **[10]**

----- X -----

**MES Garware College Of Commerce**

**T.Y.B.B.A.(C.A.) Semester-V**

**Lab Course:** Lab Based on Core Java

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Marks:50

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**Q.1 Core Java:**

**A)** Write a java program to check whether given string is palindrome or not. **[10]**

**B)** Create a package named Series having three different classes to print series: i. Fibonacci series ii. Cube of numbers iii. Square of numbers Write a java program to generate 'n' terms of the above series. **[20]**

**Q.2 Viva** **[10]**

**Q.3 Lab Book** **[10]**

----- X -----

**MES Garware College Of Commerce**  
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**Lab Course: Lab Based on Core Java**  
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**Q.1 Core Java:**

A) Write a java program to display ASCII values of the characters from a file. [10]

B) Write a java program using applet to draw Temple. [20]

**Q.2 Viva** [10]

**Q.3 Lab Book** [10]

----- X -----

**MES Garware College Of Commerce**

**T.Y.B.B.A.(C.A.) Semester-V**

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Credits: 2

Marks:50

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**Q.1 Core Java:**

**A)** Write a java program to accept a number from user, If it is greater than 1000 then throw user defined exception “Number is out of Range” otherwise display the factors of that number. (Use static keyword) **[10]**

**B)** Write a java program to accept directory name in TextField and display list of files and subdirectories in List Control from that directory by clicking on Button. **[20]**

**Q.2 Viva** **[10]**

**Q.3 Lab Book** **[10]**

----- X -----

**MES Garware College Of Commerce**

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Marks:50

---

**Q.1 Core Java:**

**A)** Write a java program to count the number of integers from a given list. (Use Command line arguments). **[10]**

**B)** Write a java Program to accept the details of 5 employees (Eno, Ename, Salary) and display it onto the JTable. **[20]**

**Q.2 Viva** **[10]**

**Q.3 Lab Book** **[10]**

----- X -----

**MES Garware College Of Commerce**

**T.Y.B.B.A.(C.A.) Semester-V**

**Lab Course:** Lab Based on Core Java

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Credits: 2

Marks:50

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**Q.1 Core Java:**

**A)** Write a java program using Applet to display a smiley. **[20]**

**B)** Write a java program to check whether given candidate is eligible for voting or not. Handle user defined as well as system defined Exception. **[10]**

**Q.2 Viva** **[10]**

**Q.3 Lab Book** **[10]**

----- X -----

**MES Garware College Of Commerce**

**T.Y.B.B.A.(C.A.) Semester-V**

**Lab Course:** Lab Based on Core Java

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Marks:50

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**Q.1 Core Java:**

**A)** Write a java program to design a following GUI (Use Swing). **[20]**

**B)** Write a java program to accept a number from a user, if it is zero then throw user defined Exception “Number is Zero”. If it is non-numeric then generate an error “Number is Invalid” otherwise check whether it is palindrome or not. **[10]**

**Q.2 Viva** **[10]**

**Q.3 Lab Book** **[10]**

----- X -----

**MES Garware College Of Commerce**

**T.Y.B.B.A.(C.A.) Semester-V**

**Lab Course: Lab Based on AngularJS**

**Course Code: 23BA5-A074**

Credits: 2

Marks:50

---

**Q.1 AngularJS:**

**A)** Write an AngularJS script to display list of games stored in an array on click of button using ng-click. And also Demonstrate ng-init, ng-bind directive of AngularJS.

**[15]**

**B)** Using AngularJS create a SPA for eLearning System.

**[15]**

**Q.2 Viva**

**[10]**

**Q.3 Lab Book**

**[10]**

----- X -----



**MES Garware College Of Commerce**

**T.Y.B.B.A.(C.A.) Semester-V**

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---

**Q.1 AngularJS:**

**A)** Write a HTML code using AngularJS to generate the following output

Undergraduate Courses (hint : use ng-repeat, ng-init directive)

- i. BBA(CA)
- ii. BCA(Science)
- iii. B.Sc.(Computer Science)

Post Graduate Courses

- i. M.Sc.(Computer Science)
- ii. M.Sc.(CA)
- iii. MCA

**[15]**

**B)** Using AngularJS create a SPA for a Recipe Book.

**[15]**

**Q.2 Viva**

**[10]**

**Q.3 Lab Book**

**[10]**

----- X -----

**MES Garware College Of Commerce**

**T.Y.B.B.A.(C.A.) Semester-V**

**Lab Course:** Lab Based on AngularJS

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Marks:50

---

**Q.1 AngularJS:**

- A) Using AngularJS display the 10 student details in Table format (using ng-repeat directive use Array to store data) [15]
- B) Using AngularJS create a SPA that clone the “Hacker News” website. [15]

**Q.2 Viva** [10]

**Q.3 Lab Book** [10]

----- X -----

**MES Garware College Of Commerce**

**T.Y.B.B.A.(C.A.) Semester-V**

**Lab Course:** Lab Based on AngularJS

**Course Code:** 23BA5-A074

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Marks:50

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**Q.1 AngularJS:**

A) Write an AngularJS script to print details of bank (bank name, MICR code, IFC code, address etc.) in tabular form using ng-repeat [15]

B) Using AngularJS Develop Online School System. [15]

**Q.2 Viva** [10]

**Q.3 Lab Book** [10]

----- X -----

**MES Garware College Of Commerce**

**T.Y.B.B.A.(C.A.) Semester-V**

**Lab Course:** Lab Based on AngularJS

**Course Code:** 23BA5-A074

Credits: 2

Marks:50

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**Q.1 AngularJS:**

A) Write an AngularJS script for addition of two numbers using ng-init, ng-model & ng-bind.  
And also Demonstrate ng-show, ng-disabled, ng-click directives on button component. [15]

B) Using AngularJS Implement E-commerce Website. [15]

**Q.2 Viva** [10]

**Q.3 Lab Book** [10]

----- X -----

**MES Garware College Of Commerce**

**T.Y.B.B.A.(C.A.) Semester-V**

**Lab Course:** Lab Based on AngularJS

**Course Code:** 23BA5-A074

Credits: 2

Marks:50

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**Q.1 AngularJS:**

- A)** Using AngularJS Create a SPA that show Syllabus content of all subjects of SYBBA (CA)(use ng-view) [15]
- B)** Write an AngularJS script to display list of games stored in an array on click of button using ng-click. And also Demonstrate ng-init, ng-bind directive of AngularJS. [15]

**Q.2 Viva** [10]

**Q.3 Lab Book** [10]

----- X -----

**MES Garware College Of Commerce**

**T.Y.B.B.A.(C.A.) Semester-V**

**Lab Course:** Lab Based on AngularJS

**Course Code:** 23BA5-A074

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Marks:50

---

**Q.1 AngularJS:**

**A)** Using AngularJS Create a SPA that show Syllabus content of all subjects of SYBBA (CA)(use ng-view) **[15]**

**B)** Write a HTML code using AngularJS to generate the following output

Undergraduate Courses (hint : use ng-repeat, ng-init directive)

- i. BBA(CA)
- ii. BCA(Science)
- iii. B.Sc.(Computer Science)

Post Graduate Courses

- i. M.Sc.(Computer Science)
- ii. M.Sc.(CA)
- iii. MCA

**[15]**

**Q.2 Viva**

**[10]**

**Q.3 Lab Book**

**[10]**

----- X -----

**MES Garware College Of Commerce**

**T.Y.B.B.A.(C.A.) Semester-V**

**Lab Course:** Lab Based on AngularJS

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**Q.1 AngularJS:**

- A)** Create an HTML form using AngularJS that contain the Student Registration details and validate Student first and last name as it should not contain other than alphabets and age should be between 18 to 50 and display greeting message depending on current time using ng-show (e.g. Good Morning, Good Afternoon, etc.)(use AJAX). **[15]**
- B)** Using AngularJS display the 10 student details in Table format (using ng-repeat directive use Array to store data) **[15]**

**Q.2 Viva** **[10]**

**Q.3 Lab Book** **[10]**

----- X -----

**MES Garware College Of Commerce**

**T.Y.B.B.A.(C.A.) Semester-V**

**Lab Course:** Lab Based on AngularJS

**Course Code:** 23BA5-A074

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Marks:50

---

**Q.1 AngularJS:**

- A) Create an HTML form using AngularJS that contain the Employee Registration details and validate DOB, Joining Date, and Salary and also create a simple arithmetic calculator using radio buttons (use ng-switch, ng-switch-when) [15]
- B) Write an AngularJS script to print details of bank (bank name, MICR code, IFC code, address etc.) in tabular form using ng-repeat [15]

**Q.2 Viva** [10]

**Q.3 Lab Book** [10]

----- X -----



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**Lab Course:** Lab Based on AngularJS

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**Q.1 AngularJS:**

**A)** Using AngularJS Create a SPA that show address and contact details of Some 5-10 top Hotels which are in pune location.(use ng-view)

**[15]**

**B)** Write an AngularJS script for addition of two numbers using ng-init, ng-model & ng-bind. And also Demonstrate ng-show, ng-disabled, ng-click directives on button component.

**[15]**

**Q.2 Viva**

**[10]**

**Q.3 Lab Book**

**[10]**

----- X -----

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**T.Y.B.B.A.(C.A.) Semester-V**

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**Q.1 AngularJS:**

**A)** Using AngularJS Create a SPA that show History of some(4-8) Historical Places (use MVC).

**[15]**

**B)** Using AngularJS Create a SPA that show Syllabus content of all subjects of SYBBA (CA)(use ng-view)

**[15]**

**Q.2 Viva**

**[10]**

**Q.3 Lab Book**

**[10]**

----- X -----

**MES Garware College Of Commerce**

**T.Y.B.B.A.(C.A.) Semester-V**

**Lab Course:** Lab Based on AngularJS

**Course Code:** 23BA5-A074

Credits: 2

Marks:50

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**Q.1 AngularJS:**

**A)** Using AngularJS Create a SPA for customer registration visiting a departmental store. Form should consists of fields such as name, contact no., gender, favourite item(to be selected from a list of items with Quantity) and suggestions. Display the Bill with total no of items selected and total amount to be paid.(use filter) **[15]**

**B)** Using AngularJS Create a SPA that show Syllabus content of all subjects of SYBBA (CA)(use ng-view) **[15]**

**Q.2 Viva** **[10]**

**Q.3 Lab Book** **[10]**

----- X -----

**MES Garware College Of Commerce**

**T.Y.B.B.A.(C.A.) Semester-V**

**Lab Course: Lab Based on AngularJS**

**Course Code: 23BA5-A074**

Credits: 2

Marks:50

---

**Q.1 AngularJS:**

- A) Using AngularJS create a SPA that accept the details of student and display mark sheet (roll\_no, student\_name, class, sub1, sub2, sub3, total, percentage, grade) [15]
- B) Create an HTML form using AngularJS that contain the Student Registration details and validate Student first and last name as it should not contain other than alphabets and age should be between 18 to 50 and display greeting message depending on current time using ng-show (e.g. Good Morning, Good Afternoon, etc.)(use AJAX). [15]

**Q.2 Viva** [10]

**Q.3 Lab Book** [10]

----- X -----

**MES Garware College Of Commerce**

**T.Y.B.B.A.(C.A.) Semester-V**

**Lab Course:** Lab Based on AngularJS

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---

**Q.1 AngularJS:**

- A)** Using AngularJS Create a SPA to take the information of a customer for booking a plan consisting of fields such as name, address, contact no., gender, Date of booking, date of journey, no of passenger, name of passenger etc. Display the e –Ticket. **[15]**
- B)** Create an HTML form using AngularJS that contain the Employee Registration details and validate DOB, Joining Date, and Salary and also create a simple arithmetic calculator using radio buttons (use ng-switch, ng-switch-when) **[15]**

**Q.2 Viva** **[10]**

**Q.3 Lab Book** **[10]**

----- X -----

**MES Garware College Of Commerce**

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---

**Q.1 AngularJS:**

**A)** Using AngularJS Create a SPA for Bus Ticket Reservation consisting of fields : Name, Address, contact no, source station(Dropdown list), Destination station, Date of booking, date of journey, no of passenger, name of passenger, gender of passenger etc. Display the e –Ticket. [15]

**B)** Using AngularJS Create a SPA that show address and contact details of Some 5-10 top Hotels which are in pune location.(use ng-view) [15]

**Q.2 Viva** [10]

**Q.3 Lab Book** [10]

----- X -----

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**Lab Course:** Lab Based on AngularJS

**Course Code:** 23BA5-A074

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Marks:50

---

**Q.1 AngularJS:**

- A) Using AngularJS display the student details who are live in pune in Table format (using ng-repeat directive, use Array to store data, use filter) [15]
- B) Using AngularJS Create a SPA that show History of some(4-8) Historical Places (use MVC). [15]

**Q.2 Viva** [10]

**Q.3 Lab Book** [10]

----- X -----

**MES Garware College Of Commerce**

**T.Y.B.B.A.(C.A.) Semester-V**

**Lab Course:** Lab Based on AngularJS

**Course Code:** 23BA5-A074

Credits: 2

Marks:50

---

**Q.1 AngularJS:**

- A) Write an AngularJS script to search student name according to the character typed and display details( use array and filter). **[15]**
- B) Using AngularJS Create a SPA for customer registration visiting a departmental store. Form should consists of fields such as name, contact no., gender, favourite item(to be selected from a list of items with Quantity) and suggestions. Display the Bill with total no of items selected and total amount to be paid.(use filter) **[15]**

**Q.2 Viva** **[10]**

**Q.3 Lab Book** **[10]**

----- X -----



**MES Garware College Of Commerce**

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**Lab Course:** Lab Based on AngularJS

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Credits: 2

Marks:50

---

**Q.1 AngularJS:**

- A) Using AngularJS create a SPA that shows Teacher Profile who are teaching SYBBA (CA) with photo. [15]
- B) Using AngularJS create a SPA that accept the details of student and display mark sheet (roll\_no, student\_name, class, sub1, sub2, sub3, total, percentage, grade) [15]

**Q.2 Viva** [10]

**Q.3 Lab Book** [10]

----- X -----

**MES Garware College Of Commerce**

**T.Y.B.B.A.(C.A.) Semester-V**

**Lab Course:** Lab Based on AngularJS

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Credits: 2

Marks:50

---

**Q.1 AngularJS:**

- A)** Using AngularJS display the Employee details order by salary in Table format (using ng-repeat directive, use Array to store data, use filter) [15]
- B)** Using AngularJS Create a SPA to take the information of a customer for booking a plan consisting of fields such as name, address, contact no., gender, Date of booking, date of journey, no of passenger, name of passenger etc. Display the e –Ticket. [15]

**Q.2 Viva** [10]

**Q.3 Lab Book** [10]

----- X -----

**MES Garware College Of Commerce**

**T.Y.B.B.A.(C.A.) Semester-V**

**Lab Course:** Lab Based on AngularJS

**Course Code:** 23BA5-A074

Credits: 2

Marks:50

---

**Q.1 AngularJS:**

- A)** Using AngularJS create a SPA that to accept the details such as name, mobile number, pin-code and email address and make validation. Name should contain character only, mobile number should contain only 10 digit, Pin code should contain only 6 digit, email id should contain only one @, . Symbol [15]
- B)** Using AngularJS Create a SPA to take the information of a customer for booking a plan consisting of fields such as name, address, contact no., gender, Date of booking, date of journey, no of passenger, name of passenger etc. Display the e –Ticket. [15]

**Q.2 Viva** [10]

**Q.3 Lab Book** [10]

----- X -----

**MES Garware College Of Commerce**

**T.Y.B.B.A.(C.A.) Semester-V**

**Lab Course:** Lab Based on AngularJS

**Course Code:** 23BA5-A074

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Marks:50

---

**Q.1 AngularJS:**

- A) Using AngularJS create a SPA that to accept the details of doctor(5-6) having field's dno, dname, address, and phone number. Display those in table format. (use MVC.) [15]
- B) Using AngularJS display the student details who are live in pune in Table format (using ng-repeat directive, use Array to store data, use filter) [15]

**Q.2 Viva** [10]

**Q.3 Lab Book** [10]

----- X -----

**MES Garware College Of Commerce**

**T.Y.B.B.A.(C.A.) Semester-V**

**Lab Course:** Lab Based on AngularJS

**Course Code:** 23BA5-A074

Credits: 2

Marks:50

---

**Q.1 AngularJS:**

**A)** Using AngularJS create a SPA that accept Voters details and check proper validation for (name, age, and nationality) as Name should be in upper case letters, Age should not be less than 18 yrs and Nationality should be Indian. **[15]**

**B)** Write an AngularJS script to search student name according to the character typed and display details( use array and filter). **[15]**

**Q.2 Viva** **[10]**

**Q.3 Lab Book** **[10]**

----- X -----

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---

**Q.1 AngularJS:**

**A)** Using AngularJS create a SPA to carry out validation for a username entered in textbox. If the textbox is blank, alert 'Enter username'. If the number of characters is less than three, alert 'Username is too short'. If value entered is appropriate the print 'Valid username' and password should be minimum 8 characters. **[15]**

**B)** Using AngularJS create a SPA that shows Teacher Profile who are teaching SYBBA (CA) with photo. **[15]**

**Q.2 Viva** **[10]**

**Q.3 Lab Book** **[10]**

----- X -----

**MES Garware College Of Commerce**

**T.Y.B.B.A.(C.A.) Semester-V**

**Lab Course:** Lab Based on AngularJS

**Course Code:** 23BA5-A074

Credits: 2

Marks:50

---

**Q.1 AngularJS:**

**A)** Using AngularJS create a SPA to fetch suggestions when is user is typing in a textbox. (eg like google suggestions. Hint create array of suggestions and matching string will be displayed). **[15]**

**B)** Using AngularJS display the Employee details order by salary in Table format (using ng-repeat directive, use Array to store data, use filter) **[15]**

**Q.2 Viva** **[10]**

**Q.3 Lab Book** **[10]**

----- X -----

**MES Garware College Of Commerce**

**T.Y.B.B.A.(C.A.) Semester-V**

**Lab Course:** Lab Based on AngularJS

**Course Code:** 23BA5-A074

Credits: 2

Marks:50

---

**Q.1 AngularJS:**

- A) Create an HTML form Using AngularJS for Login system and validate email ID using Regular Expression and password should be minimum 8 characters. [15]
- B) Using AngularJS create a SPA that to accept the details such as name, mobile number, pin-code and email address and make validation. Name should contain character only, mobile number should contain only 10 digit, Pin code should contain only 6 digit, email id should contain only one @, . Symbol [15]

**Q.2 Viva** [10]

**Q.3 Lab Book** [10]

----- X -----



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**Lab Course:** Lab Based on AngularJS

**Course Code:** 23BA5-A074

Credits: 2

Marks:50

---

**Q.1 AngularJS:**

A) Using AngularJS create a SPA for eLearning System. [15]

B) Using AngularJS create a SPA that to accept the details of doctor(5-6) having field's dno, dname, address, and phone number. Display those in table format. (use MVC.) [15]

**Q.2 Viva** [10]

**Q.3 Lab Book** [10]

----- X -----

**MES Garware College Of Commerce**

**T.Y.B.B.A.(C.A.) Semester-V**

**Lab Course:** Lab Based on AngularJS

**Course Code:** 23BA5-A074

Credits: 2

Marks:50

---

**Q.1 AngularJS:**

**A)** Using AngularJS create a SPA for a Recipe Book. **[15]**

**B)** Using AngularJS create a SPA that accept Voters details and check proper validation for (name, age, and nationality) as Name should be in upper case letters, Age should not be less than 18 yrs and Nationality should be Indian. **[15]**

**Q.2 Viva** **[10]**

**Q.3 Lab Book** **[10]**

----- X -----

**MES Garware College Of Commerce**

**T.Y.B.B.A.(C.A.) Semester-V**

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**Course Code:** 23BA5-A074

Credits: 2

Marks:50

---

**Q.1 AngularJS:**

**A)** Using AngularJS create a SPA that clone the “Hacker News” website. **[15]**

**B)** Using AngularJS create a SPA to carry out validation for a username entered in textbox. If the textbox is blank, alert ‘Enter username’. If the number of characters is less than three, alert ‘Username is too short’. If value entered is appropriate the print ‘Valid username’ and password should be minimum 8 characters. **[15]**

**Q.2 Viva** **[10]**

**Q.3 Lab Book** **[10]**

----- X -----

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Credits: 2

Marks:50

---

**Q.1 AngularJS:**

**A)** Using AngularJS Develop Online School System. [15]

**B)** Using AngularJS create a SPA to fetch suggestions when is user is typing in a textbox. (eg like google suggestions. Hint create array of suggestions and matching string will be displayed). [15]

**Q.2 Viva** [10]

**Q.3 Lab Book** [10]

----- X -----

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Credits: 2

Marks:50

---

**Q.1 AngularJS::**

**A)** Using AngularJS Implement E-commerce Website. **[15]**

**B)** Create an HTML form Using AngularJS for Login system and validate email ID using Regular Expression and password should be minimum 8 characters. **[15]**

**Q.2 Viva** **[10]**

**Q.3 Lab Book** **[10]**

----- X -----

**MES Garware College Of Commerce**  
**T.Y.B.B.A.(C.A.) Semester-V**  
**Lab Course: Lab Based on Big Data**  
**Course Code: 23BA5-A075**

Credits: 2

Marks:50

---

**Q.1 Big Data:**

A) Write a script in R to find Sum, Mean and Product of a Vector. [15]

B) Write a script in R to create inner, outer, left, right join from given two data frames. [15]

**Q.2 Viva / Oral** [10]

**Q.3 Lab Book** [10]

----- X -----

**MES Garware College Of Commerce**

**T.Y.B.B.A.(C.A.) Semester-V**

**Lab Course:** Lab Based on Big Data

**Course Code:** 23BA5-A075

Credits: 2

Marks:50

---

**Q.1 Big Data:**

A) Write a script in R to sort a Vector in ascending and descending order [15]

B) Write a script in R to drop column(s) by name from a given data frame [15]

**Q.2 Viva / Oral** [10]

**Q.3 Lab Book** [10]

----- X -----

**MES Garware College Of Commerce**

**T.Y.B.B.A.(C.A.) Semester-V**

**Lab Course:** Lab Based on Big Data

**Course Code:** 23BA5-A075

Credits: 2

Marks:50

---

**Q.1 Big Data:**

**A)** Write a script in R to find Sum, Mean and Product of a Vector. [15]

**B)** Write a script in R to compare two data frames to find the elements in first data frame that are not present in second data frame. [15]

**Q.2 Viva / Oral** [10]

**Q.3 Lab Book** [10]

----- X -----



**MES Garware College Of Commerce**

**T.Y.B.B.A.(C.A.) Semester-V**

**Lab Course: Lab Based on Big Data**

**Course Code: 23BA5-A075**

Credits: 2

Marks:50

---

**Q.1 Big Data:**

- A) Write a script in R to extract first 10 English letter in lower case and last 10 letters in uppercase and extract letters between 22nd to 24th letters in upper case. [15]
- B) Write a script in R to create a Dataframes which contain details of 5 employees and display the details in ascending order. [15]

**Q.2 Viva / Oral**

[10]

**Q.3 Lab Book**

[10]

----- X -----

**MES Garware College Of Commerce**  
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**Lab Course: Lab Based on Big Data**  
**Course Code: 23BA5-A075**

Credits: 2

Marks:50

---

**Q.1 Big Data:**

A) Write a script in R to create a simple bar plot of five subject's marks. [15]

B) Write a script in R to find unique elements across multiple vectors using Function. [15]

**Q.2 Viva / Oral** [10]

**Q.3 Lab Book** [10]

----- X -----

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Credits: 2

Marks:50

---

**Q.1 Big Data:**

A) Write a script in R to calculate Multiplication Table [15]

B) Write a script in R to detect, remove, or impute missing data. [15]

**Q.2 Viva / Oral**

[10]

**Q.3 Lab Book**

[10]

----- X -----

**MES Garware College Of Commerce**

**T.Y.B.B.A.(C.A.) Semester-V**

**Lab Course: Lab Based on Big Data**

**Course Code: 23BA5-A075**

Credits: 2

Marks:50

---

**Q.1 Big Data:**

**A)** Consider the inbuilt iris dataset

- i) Create a variable “y” and attach to it the output attribute of the “iris” dataset.
- ii) Create a barplot to breakdown your output attribute.
- iii) Create a density plot matrix for each attribute by class value.

**[15]**

**B)** Write a script in R to create two vectors of different lengths and give these vectors as input to array and print addition and subtraction of those matrices.

**[15]**

**Q.2 Viva / Oral**

**[10]**

**Q.3 Lab Book**

**[10]**

----- X -----

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**T.Y.B.B.A.(C.A.) Semester-V**

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**Course Code:** 23BA5-A075

Credits: 2

Marks:50

---

**Q.1 Big Data:**

- A) Write a script in R to draw an empty plot and an empty plot specify the axes limits of the graphic. [15]
- B) Write a script in R to change the first level of a factor with another level of a given factor. [15]

**Q.2 Viva / Oral**

**[10]**

**Q.3 Lab Book**

**[10]**

----- X -----

**MES Garware College Of Commerce**

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---

**Q.1 Big Data:**

- A) Write a script in R to print the numbers from 1 to 100 and print "SY" for multiples of 3, print "BBA" for multiples of 5, and print "SYBBA" for multiples of both. [15]
- B) Write a script in R to create two vectors of different lengths and give these vectors as input to array and print second row of second matrix of the array. [15]

**Q.2 Viva / Oral**

**[10]**

**Q.3 Lab Book**

**[10]**

----- X -----

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---

**Q.1 Big Data:**

A) Write a script in R to create three vectors a,b,c with 3 integers. Combine the three vectors to become a 3×3 matrix where each column represents a vector. Print the content of the matrix. [15]

B) Write a script in R to create new features & transform data [15]

**Q.2 Viva / Oral** [10]

**Q.3 Lab Book** [10]

----- X -----

**MES Garware College Of Commerce**

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Marks:50

---

**Q.1 Big Data:**

A) Write a script in R to create an array, passing in a vector of values and a vector of dimensions. Also provide names for each dimension.

[15]

B) Consider Weather dataset

i) Selecting using the column number

ii) Selecting using the column name

iii) Make a scatter plot to compare Wind speed and temperature

[15]

**Q.2 Viva / Oral**

[10]

**Q.3 Lab Book**

[10]

----- X -----



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Marks:50

---

**Q.1 Big Data:**

- A)** Write a script in R to create a list of cities and perform the following [15]
- 1) Give names to the elements in the list.
  - 2) Add an element at the end of the list.
  - 3) Remove the last element.
  - 4) Update the 3rd Element

- B)** Write a script in R to find & remove duplicate rows and removing Outliers. [15]

**Q.2 Viva / Oral** [10]

**Q.3 Lab Book** [10]

----- X -----

**MES Garware College Of Commerce**  
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Marks:50

---

**Q.1 Big Data:**

A) Write a script in R to detect outliers using Boxplot & IQR Method. [15]

B) Write a script in R to count the number of NA values in a DataFrame column in R. [15]

**Q.2 Viva / Oral** [10]

**Q.3 Lab Book** [10]

----- X -----

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Credits: 2

Marks:50

---

**Q.1 Big Data:**

A) Write a script in R to normalize a Vector (Scaling to Range 0-1) [15]

B) Write a script in R to calculate binary into Decimal of a given number using function. [15]

**Q.2 Viva / Oral** [10]

**Q.3 Lab Book** [10]

----- X -----

**MES Garware College Of Commerce**

**T.Y.B.B.A.(C.A.) Semester-V**

**Lab Course:** Lab Based on Big Data

**Course Code:** 23BA5-A075

Credits: 2

Marks:50

---

**Q.1 Big Data:**

- A) Consider Weather dataset** [15]
- i) Selecting using the column number
  - ii) Selecting using the column name
  - iii) Make a scatter plot to compare Wind speed and temperature
- B) Write a script in R to concatenate two given factors in a single factor and display in descending order.** [15]

**Q.2 Viva / Oral** [10]

**Q.3 Lab Book** [10]

----- X -----

**MES Garware College Of Commerce**

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Marks:50

---

**Q.1 Big Data:**

- A) Write a script in R to extract the five of the levels of factor created from a random sample from the LETTERS [15]
- B) Write a script in R to concatenate two given factors in a single factor and display in descending order. [15]

**Q.2 Viva / Oral**

[10]

**Q.3 Lab Book**

[10]

----- X -----

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**Lab Course: Lab Based on Big Data**

**Course Code: 23BA5-A075**

Credits: 2

Marks:50

---

**Q.1 Big Data:**

- A)** Consider the inbuilt iris dataset [15]  
i) Create a variable “y” and attach to it the output attribute of the “iris” dataset.  
ii) Create a barplot to breakdown your output attribute.  
iii) Create a density plot matrix for each attribute by class value.

- B)** Write a script in R to calculate Decimal into binary of a given number. [15]

**Q.2 Viva / Oral** [10]

**Q.3 Lab Book** [10]

----- X -----

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Credits: 2

Marks:50

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**Q.1 Big Data:**

- A) Consider the inbuilt mtcars dataset [15]**
- i) Subset the vector, "mtcars[,1]", for values greater than "15.0".
  - ii) Subset "airquality" for "Ozone" greater than "28", or "Temp" greater than "70".  
Return the first five rows.
  - iii) Subset "airquality" for "Ozone" greater than "100". Select the columns "Ozone",  
"Temp", "Month" and "Day" only.
- B) Write a script in R to convert a given matrix to a list and print list in ascending order. [15]**

**Q.2 Viva / Oral [10]**

**Q.3 Lab Book [10]**

----- X -----

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**Course Code: 23BA5-A075**

Credits: 2

Marks:50

---

**Q.1 Big Data:**

A) Write a script in R to create a simple bar plot of five subject's marks. [15]

B) Write a script in R to change the first level of a factor with another level of a given factor. [15]

**Q.2 Viva / Oral** [10]

**Q.3 Lab Book** [10]

----- X -----



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Marks:50

---

**Q.1 Big Data:**

- A)** Consider the plantGrowth inbuilt dataset [15]
- i) Create a variable “y” and attach to it the output attribute of the “plantGrowth” dataset.
  - ii) Create a barplot to breakdown your output attribute.
  - iii) Create a density plot matrix for each attribute by class value.

- B)** Write an R program to sort a Vector in ascending and descending order. [15]

**Q.2 Viva / Oral** [10]

**Q.3 Lab Book** [10]

----- X -----