**Q1. Core Java:**

A) Write a ‘java’ program to copy only non-numeric data from one file to another file. [25 M]

B) Write a ‘java’ program to display characters from ‘A’ to ‘Z’. **[15 M]**

**Q2. 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. [40 M]

**OR**

**PHP:**

A)Write a PHP script for the following: Design a form to accept a string. Write a function to count the total number of vowels (a,e,i,o,u) from the string. Show the occurrences of each vowel from the string. Check whether the given string is a palindrome or not, without using built-in function. (Use radio buttons and the concept of function. Use ‘include’ construct or require stmt.) **[25 M]**

B) A college has given roll number to each student, The roll number is six digit number where first two digits are faculty(B.Sc., BCA, BA) third digit is year (Ist(1), IInd(2) and IIIrd(3)) and last three digit are actual number. Write PHP script to accept a number and print faculty, year and roll number of student.(e.g Rollno=BC1004,faculty=BCA, year=1st,rollno=004) [15 M]

**Q.3 Viva [10 M]**

**Q.4 Lab Book [10 M]**

**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) [25 M]

B) Write a java program to display all the vowels from a given string. [15 M]

**Q2. 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 [40 M]

**OR**

**PHP:**

A)Write a PHP script for the following: Design a form to accept two strings from the user. Find the first occurrence and the last occurrence of the small string in the large string. Also count the total number of occurrences of small string in the large string. Provide a text box to accept a string, which will replace the small string in the large string. (Use built-in functions) [25 M]

B)Write a PHP script to demonstrate the introspection for examining class(use function get\_declared\_classes() ,get\_class\_methods() and get\_class\_vars()). [15 M]

**Q.3 Viva [10 M]**

**Q.4 Lab Book [10 M]**

**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.) [25 M]

B) Write a ‘java’ program to check whether given number is Armstrong or not. (Use static keyword) [15 M]

**Q.2. AngularJS:**

Using AngularJS display the 10 student details in Table format (using ng-repeat directive use Array to store data) [40 M]

**OR**

**PHP:**

A)Write a PHP script for the following: Design a form to accept two numbers from the user. Give options to choose the arithmetic operation (use radio buttons). Display the result on the next form. (Use the concept of function and default parameters. [25 M]

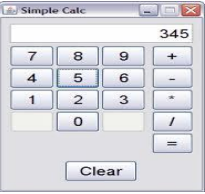
B)Write a PHP script for the following: Design a form to accept a number from the user. Display the number and its factorial as a result on the next form. (Use the concept of function and default parameters. [15 M]

Q.3 Viva [10 M]

Q.4 Lab Book [10 M]

Q.1. **Core Java:**

A) Write a java program using Applet to implement a simple arithmetic calculator.[25 M]



B) Write a java program to display alternate character from a given string. [15 M]

Q.2 **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 [40 M]

**OR**

**PHP:**

A)Write a PHP script for the following: Design a form to accept two strings from the user. Find whether the small string appears at the start of the large string. Provide a text box to accept the string that will replace all occurrences of small string present in the large string. Also split the large string into separate words. (Use regular expressions) [25 M]

B)Write a Calculator class that can accept two values, then add them, subtract them, multiply them together, or divide them on request. For example:

$calc = new Calculator( 3, 4 );

echo $calc- >add(); // Displays “7”

echo $calc- >multiply(); // Displays “12” [15 M]

Q.3 Viva [10 M]

Q.4 Lab Book [10 M]

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. [25 M]

B) Write a java program to display following pattern:

5

4 5

3 4 5

2 3 4 5

1 2 3 4 5 [15 M]

Q.2 **AngularJS:**

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. [40 M]

**OR**

**PHP:**

A)Write a PHP script for the following: Design a form to accept the details of 5 different items, such as item code, item name, units sold, rate. Display the bill in the tabular format. Use only 4 text boxes. (Hint : Use of explode function.) [25 M]

B)Write a PHP program to create a simple calculator that accepts two numbers and performs operations like add, subtract, multiplication and divide (using Self Processing form) [15mks]

Q.3 Viva [10 M]

Q.4 Lab Book [10 M]

Q.1. **Core Java**

A) Write a java program to display transpose of a given matrix. [25 M]

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). [15 M]

Q.2 **AngularJS:**

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

**OR**

**PHP:**

A)Write a PHP script for the following: Design a form to accept two strings. Compare the two strings using both methods (= = operator &strcmp function). Append second string to the first string. Accept the position from the user; from where the characters from the first string are reversed. (Use radio buttons) [25 M]

B)Accept a number from the user and write a PHP program to display the multiplication table of the number. Use SELF processing form. [15 M]

Q.3 Viva [10 M]

Q.4 Lab Book [10 M]

Q.1. **Core Java**

B) 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) [25 M]

A) 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. [15 M]

Q.2 **AngularJS:**

**A)** Using AngularJS Create a SPA that show Syllabus content of all subjects of SYBBA (CA)(use ng-view) [40 M]

**OR**

**PHP**

A) Write a menu driven PHP program to perform the following operations on an associative array: i. Display the elements of an array along with the keys.

ii. Display the size of an array

iii. Delete an element from an array from the given index.

iv. Reverse the order of each element’s key-value pair.[Hint: use array\_flip()]

v. Traverse the elements in an array in random order [[Hint: use shuffle()]. [25 M]

B).Write a PHP Script login form and validate the password. Validation is the username and password should be same. Display “Authentic Login” is correct password and “INCORRECT LOGIN” if incorrect password (Use Sticky form concept) [15 M]

Q.3 Viva [10 M]

Q.4 Lab Book [10 M]

Q.1. **Core Java**

A) Write a java program to display files having extension .txt from a given directory. [25M]

B) Define an Interface Shape with abstract method area(). Write a java program to calculate an area of Circle and Sphere.(use final keyword) [15 M]

Q.2 **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). [40 M]

**OR**

**PHP**

A)Write a menu driven PHP program to perform the following operations on associative arrays:

a) Sort the array by values (changing the keys) in ascending, descending order.

b) Also sort the array by values without changing the keys.

c) Filter the odd elements from an array.

d) Sort the different arrays at a glance using single function.

e) Merge the given arrays.

f) Find the Union, intersection& set difference of two arrays. [25 M]

B)Create an abstract class Shape with methods calc\_area( ) and calc\_volume( ). Derive two classes Sphere(radius) , Cone(radius, height). Calculate area and volume of all. (Use Method overriding). [15 M]

Q.3 Viva [10 M]

Q.4 Lab Book [10 M]

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. [25 M]

A) Write a java Program to display Fibonacci series of n nos. [15 M]

**Q.2 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) [40 M]

**OR**

**PHP**

A)Write PHP script to define an interface which has methods area(), volume(). Define constant PI. Create a class cylinder which implements this interface and calculate area and volume. [25M]

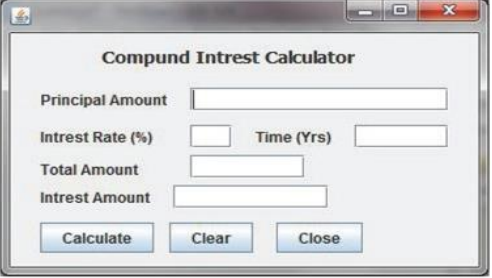
B)Create a form to accept employee details like name(first middle,last), address, mobile number, PAN number from the user. Once the information is accepted display all the information on next form. [15 M]

Q.3 Viva [10 M]

Q.4 Lab Book [10 M]

Q.1.**Core Java**

A)Write a java program for the following: Use Swings [25 M]



B)Write a java program to count the frequency of each character in a given string. [15 M]

**Q.2 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) [40 M]

**OR**

.**PHP**

A)Write class declarations and member function definitions for an employee(code, name, designation). Design derived classes as emp\_account(account\_no, joining\_date) from employee and emp\_sal(basic\_pay, earnings, deduction) from emp\_account. Write a menu driven PHP program

a) to build a master table

b) to sort all entries

c) to search an entry

d) Display salary. [25 M]

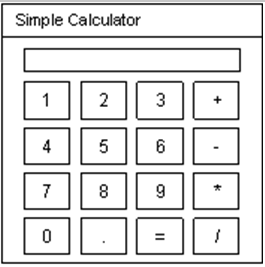
B)Write a PHP script to accept username and password. If in the first three chances, username and password entered is correct, then display “Welcome User” on the second form, otherwise display error message. [15 M]

Q.3 Viva [10 M]

Q.4 Lab Book [10 M]

Q.1. **Core Java**

A) Create a calculator with functionality in an Applet. [25 M]



B)Write a menu driven java program using command line arguments for the following: [15 M] 1. Addition 2. Subtraction 3. Multiplication 4. Division.

**Q.2 AngularJS:**

**A)** Using AngularJS Create a SPA that show History of some(4-8) Historical Places (use MVC). [40 M]

**OR**

**PHP**

A)Derive a class square from class Rectangle. Create one more class circle. Create an interface with only one method called area(). Implement this interface in all the classes. Include appropriate data members and constructors in all classes. Write a PHP program to accept details of a square, circle and rectangle and display the area. [25 M]

**B)Write a PHP script to accept 5 numbers in an array and display the same. [15M]**

Q.3 Viva [10 M]

Q.4 Lab Book [10 M]

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. [25 M]

B) Write a java program to display each String in reverse order from a String array. [15 M]

**Q.2 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) [40 M]

**OR**

**PHP**

A)Write PHP Script to create a class account (accno,cust\_name). Derive two classes from account as saving\_acc(balance, min\_amount) and current\_acc(balance, min\_amount). Display a menu a) Saving Account b) Current Account For each of this display a menu with the following options. 1. Create account 2. Deposit 3. Withdrawal [25 M]

B)Write a PHP script for the following: Design a form to accept a number from the user. Perform the operations and show the results.

1. Factorial of a number using Recursion.
2. Add the digits of that number to reduce it to single digit.

(use the concept of self processing page.) [15 M]

Q. 3 Viva [10 M]

Q.4 Lab Book [10 M]

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!". [25 M]

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. [15 M]

**Q.2 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)

[40 M]

**OR**

**PHP**

A)Write class declarations and member function definitions for following

employee (code, name, designation). Design derived classes as emp\_account (account\_no, joining\_date) from employee and emp\_sal(basic\_pay, earnings, deduction) from emp\_account. Write a PHP Script to create 5 objects (pass details using parameterized constructor) and Display details of Employees who having Maximum and Minimum Salary.

[25 M]

B)Create student registration form and display details in the next page.

(Use sticky form concept). [15 M]

Q.3 Viva [10 M]

Q.4 Lab Book [10 M]

Q.1. **Core Java**

B) Write a java AWT program to accept the details of employee (Eno, EName, Sal) and display it on next frame using appropriate event. [25 M]

A) Write a Java program to calculate power of a number using recursion. [15 M]

**Q.2 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.

[40 M]

**OR**

**PHP**

A)Using regular expressions check for the validity of entered email-id. The @ symbol should not appear more than once. The dot (.) can appear at the most once before @ and at the most twice or at least once after @ symbol. The substring before @ should not begin with a digit or underscore or dot or @ or any other special character. (Use explode and ereg function.) [25 M]

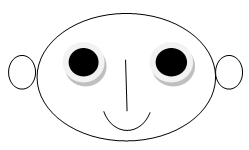
B)Write a PHP Script to display Server information in table format (Use $\_SERVER). [15 M]

Q.3 Viva [10 M]

Q.4 Lab Book [10 M]

Q.1. **Core Java**

A) Write an applet application to display smiley face. [25 M]



B) Write a java program to search given name into the array, if it is found then display its index otherwise display appropriate message. [15 M]

**Q.2 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. [40 M]

**OR**

**PHP**

A)Write PHP program to create input form for Grocery that displays List of grocery items with checkboxes and create a bill according to list of items selected after clicking submit button. [25 M]

B)To create form that accept the user details. write php program to capitalize of first letter of each name and check user email address contain @ symbol. [15 M]

Q.3 Viva [10 M]

Q.4 Lab Book [10 M]

Q.1. **Core Java**

B)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) [25 M]

A)Write a java program to calculate sum of digits of a given number using recursion. [15 M]

**Q.2 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 ) [40 M]

**OR**

**PHP**

A)Write a PHP program that accept customer name, consumer number and number of electricity units consumed from an input form and print electricity bill from following data

* For first 50 units – Rs. 3.50/unit
* For next 100 units – Rs. 4.00/unit
* For next 100 units – Rs. 5.20/unit
* For units above 250 – Rs. 6.50/unit
* Fixed meter and service charge- Rs. 150/- [25 M]

B)Design a HTML page to accept a number and write a PHP script to display that number in words e.g. 123 -🡪 one two three [15 M]

Q.3 Viva [10 M]

Q.4 Lab Book [10 M]

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) [25 M]

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. [15 M]

**Q.2 AngularJS:**

**A)** Write an AngularJS script to search student name according to the character typed and display details( use array and filter). [40 M]

**OR**

**PHP**

A)Write a PHP program for course registration of Learner in an institute that accept Name, Course to be admitted, Mobile number using input form validation such as Name should be only string of character, mobile number should contain digits with valid length and so on. and give feedback to Learner with registration details including registration number. [25 M]

B)Accept a String from the user. Write a PHP function to count the total number of vowels (a,e,i,o,u) from the string. Show the occurrences of each vowel from the string [15 M]

Q.3 Viva [10 M]

Q.4 Lab Book [10 M]

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. [25 M]

A) Write a Java program to calculate area of Circle, Triangle & Rectangle.(Use Method Overloading) [15 M]

**Q.2 AngularJS:**

**A)** Using AngularJS create a SPA that shows Teacher Profile who are teaching SYBBA (CA) with photo. [40 M]

**OR**

**PHP:**

A)Write a PHP script to create a login form with a username and password. Once the user logs in, the second form should be displayed to accept user details (name, city, phoneno). If the user doesn’t enter information within a specified time limit, expire his session and give a warning. [25 M]

B)Write a PHP script to accept a string and then display each word of string in reverse order. (use concept of self processing form) [15M]

Q.3 Viva [10 M]

Q.4 Lab Book [10 M]

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) [25 M]

B) Write a Java program to display Fibonacci series using function. [15 M]

**Q.2 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) [40 M]

**OR**

**PHP:**

A)Design HTML page to read the value for n. Write a PHP script to display first n even numbers with font size = 12 and color = red and first n odd numbers with font face = Times new Roman , size = 17 & color = yellow. [25 M]

B)Write PHP program to select list of subjects (use multivalued parameter) displays on next page.(Use listbox to select subject) [15 M]

Q.3 Viva [10 M]

Q.4 Lab Book [10 M]

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. [25 M]

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. [15 M]

**Q.2 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 [40 M]

**OR**

**PHP:**

A)Write a PHP script to change the preferences of your web page like font style, font size, font color, background color using cookie. Display selected settings on next web page and actual implementation (with new settings) on third web page. [25 M]

B)Write a PHP program to accept two string from user and check whether entered strings are matching or not.(use sticky form concept) [15 M]

Q.3 Viva [10 M]

Q.4 Lab Book [10 M]

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. [25 M]

B) Write a java program to display each word from a file in reverse order. [15 M]

**Q.2 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.) [40 M]

**OR**

**PHP:**

A)Write a PHP script to create a form to accept student information (name, class, address). Once the student information is accepted, accept marks in next form (Phy, Bio, Chem, Maths, Marathi, English).Display the mark sheet for the student in the next form containing name, class, marks of the subject, total and percentage. [25 M]

B)Write PHP script to demonstrate the concept of introspection for examining object. [15 M]

Q.3 Viva [10 M]

Q.4 Lab Book [10 M]

Q.1. **Core Java:**

A) Write a java program for the following: [25 M]

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. [15 M]

**Q.2 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. [40 M]

**OR**

**PHP:**

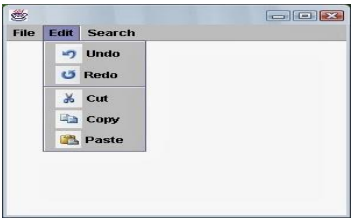
A)Write a PHP program to create a shopping mall UI. User must be allowed to do purchase from two pages. Each page should have a page total. The third page should display a bill, which consists of a page total of whatever the purchase has been done and print the total. (Use http session tracking). [25 M]

B)Write a PHP Script to display response header information for any text file using $\_http\_response\_header. [15 M]

Q.3 Viva [10 M]

Q.4 Lab Book [10 M]Q.1. **Core Java:**

A) Write a java program to design following Frame using Swing. [25 M]



B) Write a java program to check whether given file is hidden or not. If not then display its path, otherwise display appropriate message. [15 M]

**Q.2 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. [40 M]

**OR**

**PHP:**

A)Write a PHP script to create a form to accept customer information (name, address, ph-no). Once the customer information is accepted, accept product information in the next form (Product name, qty, rate). Display the bill for the customer in the next form. Bill should contain the customer information and the information of the products entered. [25 M]

B)Write a menu driven program in PHP to perform the following stack related operations:[Hint: use Array\_push(), Array\_pop(), Array\_shift(), array\_unshift() functions]

i. Insert an element in stack

ii. Delete an element from stack

iii. Display the contents of stack [15 M]

Q.3 Viva [10 M]

Q.4 Lab Book [10 M]

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. [25 M]

A) Write a java program to count number of digits, spaces and characters from a file. [15 M]

**Q.2 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). [40 M]

**OR**

**PHP:**

A)Write a PHP script to accept username and password. If in the first three chances, username and password entered is correct, then display second form, otherwise display error message. [25 M]

B)Write a menu driven program in PHP to perform the following queue related operations: [Hint:use Array\_push(), Array\_pop(), Array\_shift(), array\_unshift() functions] [15M]

i. Insert an element in queue

ii. Delete an element from queue

iii. Display the contents of queue

Q.3 Viva [10 M]

Q.4 Lab Book [10 M]

Q.1. **Core Java:**

A) Write a java program to check whether given string is palindrome or not. [15 M]

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. [25 M]

**Q.2 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. [40 M]

**OR**

**PHP:**

A)Write a PHP Script for the following:

-.Declare a Multidimensional Array.

-.Display specific element from a Multidimensional array.

-.Also delete given element from the Multidimensional array.

-.Define an array. [25 M]

B)Write a PHP program to accept two string from user and check whether entered strings are matching or not.(use sticky form concept) [15 M]

Q.3 Viva [10 M]

Q.4 Lab Book [10 M]

Q.1. **Core Java:**

A) Write a java program to display ASCII values of the characters from a file. [15 M]

B) Write a java program using applet to draw Temple. [25 M]

**Q.2 AngularJS:**

**A**) Using AngularJS create a SPA for eLearning System. [40 M]

**OR**

**PHP:**

A)Derive a class square from class Rectangle. Create one more class circle. Create an interface with only one method called area(). Implement this interface in all the classes. Include appropriate data members and constructors in all classes. Write a PHP program to accept details of a square, circle and rectangle and display the area. [25 M]

B)Write a menu driven program in PHP to perform the following operations on an associative array:

i. Accept the array

ii Display the elements of an array along with the keys.

iii. Display the size of an array

iv. Delete an element from an array from the given index. [25 M]

Q.3 Viva [10 M]

Q.4 Lab Book [10 M]

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) [15 M]

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. [25 M]

**Q.2 AngularJS:**

**A**) Using AngularJS create a SPA for a Recipe Book. [40 M]

**OR**

**PHP:**

A)Write PHP script to define an interface which has methods area(), volume(). Define constant PI. Create a class cylinder which implements this interface and calculate area and volume. [25M]

A)Write a PHP script to change Background color of the browser using switch statement according to day of the week. [ 15 M]

Q.3 Viva [10 M]

Q.4 Lab Book [10 M]

Q.1. **Core Java:**

A) Write a java program to count the number of integers from a given list. (Use Command line arguments). [15 M]

B) Write a java Program to accept the details of 5 employees (Eno, Ename, Salary) and display it onto the JTable. [25 M]

**Q.2 AngularJS:**

**A**) Using AngularJS create a SPA that clone the “Hacker News” website. [40 M]

**OR**

**PHP:**

A)Write a menu driven PHP program to perform the following operations on an associative array:

i. Display the elements of an array along with the keys.

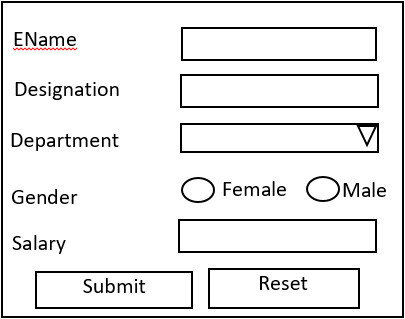
ii. Display the size of an array

iii. Delete an element from an array from the given index.

iv. Reverse the order of each element’s key-value pair.[Hint: use array\_flip()]

v. Traverse the elements in an array in random order [[Hint: use shuffle()]. [25 M]

B)Write a PHP script to accept the details of Employee(EName, Designation, Department Gender ,Salary) and display it on next page.



Q.4 Viva [10 M]

Q.5 Lab Book [10 M]

Q.1. **Core Java:**

A) Write a java program using Applet to display a smiley. [25 M]

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. [15 M]

**Q.2 AngularJS:**

**A**) Using AngularJS Develop Online School System. [40 M]

**OR**

**PHP:**

A.Write a php script to demonstrate any 6 built-in string functions. Accept data from the user as required.

B. Write a simple PHP program which accepts two numbers and displays the addition and subtraction of the numbers(use functions).

Q.3 Viva [10 M]

Q.4 Lab Book [10 M]

Q.1. **Core Java:**

A) Write a java program to design a following GUI (Use Swing). [25 M]

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. [15 M]

**Q.2 AngularJS:**

**A**) Using AngularJS Implement E-commerce Website. [40 M]

**OR**

PHP:

A)Write a PHP script for the following: Design a form to accept two strings. Compare the two strings using both methods (= = operator &strcmp function). Append second string to the first string. Accept the position from the user; from where the characters from the first string are reversed. (Use radio buttons) [25 M]

Q.3 Viva [10 M]

Q.4 Lab Book [10 M]