St. Xavier's College – Autonomous Mumbai

Syllabus
For 2nd Semester Courses in
B. Voc (Tourism)
and
B. Voc (Software Development)

From November 2016

General Education Component

Theory Syllabus for Courses:

A.BVT.2.01/S.BVS.2.01 – Business Communication - II
A.BVT.2.02/ S.BVS.2.02 – Effective French skills - II
A.BVT.2.03/ S.BVS.2.03 – Giving Voice to Values (SPC.2.01)
A.BVT.2.04/ S.BVS.2.04 – Elements of Digital Design

SEMESTER II   COURSE : A.BVT.2.01/S.BVS.2.01

BUSINESS COMMUNICATION - II

LEARNING OBJECTIVE:
- To facilitate advancement in career based on students' need to present his or her personality efficiently.
- To equip the students with the necessary speech skills/basic writing skills for professionally interacting with others in an effective manner

[Total Lectures 45]

Unit1   Advanced Communication Skills   **Total Lectures: 12**
1. Initiating, Sustaining and Closing a Business Conversation. Selling skills : closing a sale
2. Participating in Business Discussions
3. Making Formal Speeches
4. Diction and pronunciation.

Unit2   Telephone Skills   **Total Lectures: 11**
1. Agreeing and Disagreeing in Industry
2. Appointments and Friendly Reminders
3. Making and Handling Complaints

Unit3   Internet Communications Skills   **Total Lectures: 11**
1. Drafting business e-mails
2. Attending to queries
3. Email etiquette.
4. Writing blogs and articles.

Unit4 Office Communication   **Total Lectures: 11**
1. Presentation Techniques including making power point presentations.
2. Group Discussions
3. Situational Role Play

Continuous Internal Assessment
Assignments / Projects/ Presentations/ Written Test etc.

References:
1. Morris and Smith, *Business Writing*, Orion Business Toolkit
2. Thomas Huskin and Leslie Olsen, *Technical Writing and Professional Communication*, McGRAW-HILL International Editions
3. Jane Dorner, *Writing for the Internet*, Oxford University Press

4. Paul Nelson and Judy pearson, *Confidence in Public Speaking*, Jaico Publishing House
5. L. Sue. Baugh, *How to Write First Class Business Correspondence*, Viva Books Pvt. Limited

SEMESTER II   COURSE : A.BVT.2.02/S.BVS.2.02

EFFECTIVE FRENCH SKILLS - II

LEARNING OBJECTIVE:
- Discover a few aspects of French life: people food customs…
- Learn basic vocabulary to express simple sentences to talk about oneself.
- Acquire basic communication skills to buy something, to ask for/give directions.
- Develop skills and confidence to converse in a very basic manner with a French speaking person beyond introductions.

[Total Lectures 45]

Unité 5

Objectifs de communication:Thème: Ma chambre/Ma maison/Ma ville
Parler de sa chambre .Situer dans l'espace.

Grammaire
Il y a un/une/des…….dans ma chambre
Les prépositions: sur,sous,devant.derrière,à coté de , près de ,pour localiser les objets.
Les nombres :premier, deuxième…dixième
Négation :ne –pas
Impératif

Phonétique
Les voyelles nasales

Culture et Civilisation
La carte de France pour voir les villes importantes en France
Ou L'importance de quelques villes en France..
Quelques coûtumes françaises.

Thèmes tâches et projets:
Décrire sa chambre/sa ville-phrases simples (genre-il y a une poste,un cinéma….)
Remplir avec du vocabulaire et des verbes une petite histoire simple
Localisation des objets.

Lecture à voix haute

II   **Unité 6**

Objectifs de communication: Les repas
Parler des repas du jour
Savoir dire L'heure et la date

Grammaire
Les articles partitifs
Verbes –faire/dire
Les adjectifs démonstratifs

Phonétique
Opposition {u} {Y}

Culture et Civilisation
Les sp**é**cialites gastronomiques en France
Les repas en France et en Inde
Commander un plat au restaurant/dans un fast-food.

Thèmes tâches et projets
 Parler des repas en France
Parler des spécialités gastronomiques ou quelques phrases sur une ou deux fêtes
importantes:exemple Pour la fête de Sankranti on mange../on porte.. /on donne…/

III   **Unité 7**

Objectifs de communication:Theme:Les vacances
Parler des goûts /des passetemps et des vacances

Vocabulaire:
Parler de ses activités.
Parler de ses loisirs
Quelques vêtements

Grammaire
Les interrogations:Qui/Quand/comment/pourquoi?
Prépositions à/ chez
Les adjectifs possessifs

Phonétique

Intonation des phrases déclaratives./interrogatives

Culture et Civilisation:
La carte de France avec ses régions importantes.
Quelques sites touristiques .

Thèmes tâches et projets:
Remplir une carte postale à trous.
Acheter un souvenir/un t.shirt dans un magasin de souvenirs.

Continuous Internal Assessment:

Evaluation will be based on oral and written continuous tests in class.

References:
Select Bibliography:
Publication
Hachette:
      1   Bien Joué1
      2   Alter Ego 1
      3   Le kiosque
Clé International
      1   Amis et Compagnies 1
      2   Grammaire Progressive du Français
Hatier
      1   Premiers Exercices de Grammaire

Magazine Langers publication
On y va

Video Methods:
1   Taxi
2   Connexions

SEMESTER II   COURSE : A.BVT.2.03/S.BVS.2.03

GIVING VOICE TO VALUES

LEARNING OBJECTIVE:
- To familiarize students with foundational value concerns.
- To help students to critically analyse and develop their own values.
- To enable students to take practical steps to act on their values.

[Total Lectures 45]

UNIT– I: Value Clarification [5 lectures]
- What is a value?
- *Exercises* to reveal values.
- Value Formation.

UNIT – II: Comparative Religions [7 lectures]
- Inter-religious sensitivity: main ideas from the major religions
- Sharing Faith: what is the religious meaning that is precious to you
- Breaking through stereotypes
- Communalism and Building community

UNIT- III: Corruption as a way of life [5 lectures]
- Case studies e.g. CWG, Adarsh, 2G, Coalgate…
- Attempt to analyse causes
- Strategies to avoid corruption: RTI, Civil society groups, other strategies to bring accountability and transparency

UNIT – IV: Violence and Conflict Resolution [5 lectures]
    Understanding violence and conflict
- Causes and forms of violence and conflict
- Conflict resolution

UNIT - V: Youth and Substance Abuse [6 lectures]
- Substance abuse - Causes and symptoms
- Forms of substance abuse - Alcoholism, Drug addiction, Smoking
- Preventive and curative measures

UNIT – VI: The problem of evil [4 lectures]
- Conceptualising evil
- Manifestations of evil

- Mitigation

UNIT – VII: Prayer - communal and personal [3 lectures]
- What is prayer?
- The importance of prayer and silence in one's life
.

UNIT – VIII: Critical Thinking [3 lectures]
- What is critical thinking?
- The value of critical thinking
- Analysis of Newspapers, TV, Film

UNIT – IX: Ethical Relationships [7 lectures]
- Young People: Suicide, Depression, Ragging
- Causes and symptoms
- Coping strategies

Continuous Internal Assessment:

Presentations / Tests / assignments

References:

- *In Harmony: Value education at college level-* Department of Ethics and Religious studies, Loyola College, Chennai.
- Y Masih , *Introduction to Religious Philosophy* – (Chapters- 1, 2, 13, 15)
- Godfrey Harris , *Corruption: How to deal with its impact on Business and Society-*.
- Irwing G Sarason and Barabara Sarason, *Abnormal Psychology* (Chapter- 13- Substance Abuse: Drugs / Alcohol)-

Resources:
Film: The Four Religions – Arnold Toynbee
Film: The Seven Circles of Prayer – Martin Smith
Film: God in the Dock – Ellwood Kieser
Film: Teenage depression and suicide – Andrew Schlessinger
Film: Portrait of addiction- Moyers collection on DVD- Films for Humanities and sciences.

SEMESTER II   COURSE : A.BVT.2.04/S.BVS.2.04

ELEMENTS OF DIGITAL DESIGN

LEARNING OBJECTIVE:
Learn to explore the beauty of digital design software from the practical to the painterly artistic. In 45 sessions, practice the editing concepts to understand how Photoshop will help to create successful customized images.

[Total Lectures 45]

Unit 1 - Getting started with Photoshop   Number of lectures 10

☐ Fundamentals of Photos editing softwares
☐ What new in photoshop
☐ Basics of Images
☐ Vector Images
☐ Bitmap Images
☐ Interfacing with the Photoshop Desktop
☐ Working with The Menu Bar and Tool Box
☐ File and Edit Menus
☐ The Image Menu
☐ The Layer Menu
☐ The Select Menu
☐ The Filter Menu
☐ The View Menu
☐ The Help Menu
☐ ToolBox
☐ New Features in Photoshop
☐ Custom Brushes
☐ Healing Brush
☐ Picture Package
☐ Web Photo Gallery
☐ Spell Checking
☐ Opening Recent Images
☐ Importing Images
☐ PDF Image

☐ Annotations
☐ WIA Support
☐ Placing Images
☐ Optimizing Images

- ☐ File Browser
- ☐ PDF Security
- ☐ Understanding the Selecting Tools
- ☐ Rectangular Marquee
- ☐ Move Tool
- ☐ Lasso Tool
- ☐ Magic Wand
- ☐ Painting and Drawing Tools
- ☐ Editing and Retouching Tools
- ☐ Background Eraser (E)
- ☐ Erasing Image Background Color
- ☐ Guides, Grid and Slices
- ☐ Transform
- ☐ Layers
- ☐ Effects
- ☐ Filters
- ☐ Using the Color Tools
- ☐ Working with Palettes
- ☐ Actions palette
- ☐ History Palette
- ☐ Swatches Palette
- ☐ Brushes Palette
- ☐

Unit 2 - Painting & drawing Tools   Number of lectures 8

  Using The Brush and Pencil Tool
- ☐ Choosing a Brush Size
- ☐ Picking a Painting or Drawing Mode
- ☐ Setting Opacity And Flow
- ☐ Using Airbrush Mode
- ☐ Blending with the Smudge Tool
- ☐ Loading Brush Sets
- ☐ Working With The Brushes Palette
- ☐ Renaming Brush Presets
- ☐ Deleting Brush Presets
- ☐ Working with the Healing Brush
- ☐ Patching Images
- ☐

Unit 3 - Color Management in Photoshop   Number of lectures 9

  Applying Colors to your Image
- ☐ Using the Color Picker
- ☐ Selecting Colors with the Eyedropper Tool
- ☐ Working with Color Channels

☐ Displaying and Hiding Channels
☐ Mixing Color Channels
☐ Working with the Color Table
☐ Using Auto Color
☐ Using Special Color Effects
☐ Inverting Colors
☐ Working with Color Thresholds
☐ Equalizing Colors
☐ Posterizing Images
☐ Creating a Gradient Map
☐ Desaturated Colors
☐

Unit 4 - Working with Layers Session 27:   **Number of lectures 7**
☐Layer concepts
   Creating New Layers
☐ Activating a Layer
☐ Duplicating Layers
☐ Arranging Layers
☐ Working with Layer Locks
☐ Deleting Layers
Creating Layer Based Slice

Unit 5 - Using fills & styles Session 31: ☐   **Number of lectures 11**

Using the Pattern Stamp Tool

☐ Applying Pattern Fills
☐ Working with Styles Palette
☐ Understanding the Gradient Tool
☐ Customizing a Gradient
☐ Applying a Gradient
☐ Working with the Pattern Maker
☐ Creating your Own Patterns
☐ Working with the Layer Style Dialog Box
☐ Customizing Blending Options
☐ Drop Shadow
☐ Inner Shadow
☐ Outer Glow
☐ Inner Glow
☐ Bevel and Emboss

Continuous Internal Assessment
Assignments / Project

Mid Term test.

List of Text Books:

⬜ Photoshop(R) 7: The Complete Reference
by Laurie Ann Ulrich (Author)

Photoshop CC:
by Lesa Snider (Author)

List of Practicals:

Experiment 1. Moving objects from one layer to another using layer properties.
Experiment 2:Painting objects with Gradient and enhancing colour values
Experiment 3. Applying black and white ecffect to perticular object in image.
Experiment 4. Applying motion filter effect.
Experiment 5:Implementation Lens flare, colour lense & light reflection
Experiment 6.Applying dispersion effect.
Experiment 7. Implementation of water illusion effect.
Experiment 8.Creating Gallery

St. Xavier's College – Autonomous Mumbai

Syllabus
For 2nd Semester Courses in B. Voc (Software Development)
(November 2016 onwards)

Contents:

Theory Syllabus for Courses:

B. Voc. (Software Development) Semester II   **COURSE: S.BVS.2.05**

Title: PHP with MySQL

Learning Objective:
To equip with PHP for making dynamic web pages and deploy it over server. Students can apply this skill for getting job as a web developer.
Number of lectures: 45
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UNIT 1   **(15 lectures)**

PHP Basic, Arrays and Functions, Class in PHP
Understand PHP software environment. PHP Basic syntax, PHP data Types, PHP Variables, PHP Constants, PHP Expressions, PHP Operators, PHP Control Structures, PHP Loops.
Array declaration, PHP Associative Arrays, Array Iteration, PHP Multi-Dimensional Arrays, Array Functions.PHP Functions, Syntax, Arguments, Variables, References, Pass by Value & Pass by references, Return Values, Variable Scope, PHP include(), PHP require().
Class, object, Inheritance, Constructors and destructors Class Inheritance.

UNIT 2   **(15 lectures)**
String and File handling, Form and Session, JQuery and Ajax
Strings and Patterns, Matching, Extracting, Searching, Replacing, Formatting.
File Handling reading and writing
PHP Form handling, PHP GET, PHP POST, PHP Form Validation, PHP Form
PHP Cookie handling, PHP Session Handling, PHP Login Session, Managing user Account, Using HTML,CSS, JQuery and Ajax in PHP.

UNIT 3   **(15 lectures)**
MySQL , Integration with PHP
Working with PHPMyAdmin. Create, delete and update record, Retrieving specific record.
Understand CRUD operation, working with MySQL Truncate, MySQL Drop. WHERE condition, Order By, Group By, Having, LIKE, AND OR operators
Importing and Exporting CSV Files. Creating an application in PHP.

TEXT BOOKS
1. Head First PHP and MySQL – O'relly Publication.

REFERENCES BOOKS
1. PHP – Complete Reference – TMH Publication

Website
   1) **http://www.w3schools.com/php/**

B. Voc. (Software Development) Semester II   **COURSE: S.BVS.2.06**

OPERATING SYSTEM

Learning Objective:
To develop the understanding the fundamentals of modern operating system

Number of lectures: 45

Topic	No. Of lectures
UNIT 1 : Introduction To Operating System History of Operating System, Types of Operating System Batch, Multiprogramming, Multitasking, Real-Time Operating System Structure-Layered, Monolithic, Microkernal	07
UNIT 2 Processes and Deadlock Process Management, Creation, Termination, Process States Thread Model and Implementation, Interprocess Communication & Synchronization Race Condition, Critical Region, Mutual Exclusion, Semaphores,Monitiors Classical IPC Problems Dining Philosophers Problem, Readers and Writers Problem Process Scheduling(Preemptive and Nonpremptive), Deadlock Deadlock Detection And Recovery Deadlock Avoidance, Deadlock Prevention	15
UNIT 3 Memory Management Static Allocation, Dynamic Allocation, Segmentation, Paging, Virtual Memory, Page Replacement Algorithms	08
UNIT 4 File System Files Naming, Structure, Types, Attribute File System Implementation Directory implementation	08

Allocation methods File sharing NFS **Storage Structure:** Disk Structure, Disk Management, Disk scheduling RAID Structure	
UNIT 5 IO Systems IO hardware DMA I/O interface Kernel I/O subsystem Introduction to STREAMS **Distributed Operating System** Introduction to Distributed Operating System Goals, Hardware Concepts, Software Concepts, Design Issues Types of distributed operating systems : NOS-remote login, remote file transfer, data migration, computational migration, process migration	**07**

Books:
Modern Operating Systems, Andrew Tanenbaum,
Operating System Concepts, 8th Edition, Abraham Silberschatz, Peter B.Galvin, Greg Gagne, Wiley publication
Operating Systems, 2nd Edition, K. A.Sumitra Devi and N.P Banashree, SPD

Reference:
Operating Systems- A concept based approach , 2nd Edition, D.M. Dhamdhere, McGrawHill publications
Operating Systems, 3rd Edition , Godbole and Kahate, McGrawHill publications.

B. Voc. (Software Development) Semester II   **COURSE: S.BVS.2.07**

DBMS / Structured Query Language (SQL)

Learning Objective:
To learn the concept of database systems and software techniques for manipulating and maintaining databases

Number of lectures: 45

Unit 1 : Introduction to Databases   **5 Lectures**
What is database system, purpose of database system

Data models-file management systems, hierarchical databases, network databases
Relational data model- Primary key, foreign key, relationships
Codd's 12 rules
ER Diagrams

Unit 2 :Creating a database   **15 Lectures**
Table definitions - creating a table, drop a table, alter table, table aliases
Database updates-insert, update, delete, Adding data to the database, deleting data from the
database, modifying data in the database
Data Integrity-What is data integrity, simple validity checking, integrity constraints, referential
integrity

UNIT 3 : SQL Basics   **15 Lectures**
Simple Queries-Select statement, FROM clause, duplicate rows(DISTINCT), row selection,
search conditions, sorting query results
Summary queries-Column functions(SUM, AVG, MIN, MAX, COUNT), grouped
queries(GROUP BY clause)

UNIT 4 :Subqueries   **10 Lectures**
What is a subquery, subqueries in WHERE clause
Subquery search conditions-subquery comparison test(=, <>, <, <=, >, >=), set membership
test(IN), the existence test(EXISTS), quantified tests(ANY and ALL)

Continuous Internal Assessment
Assignments / Project
Mid Term test.

References :
Text Books
1. **James R. Groff and Paul N. Weinberg, "SQL- The complete reference", Second
   edition Tata McGraw-Hill**

B.Voc (Software Development) Semester II   **Course: S.BVS.2.08**

Object Oriented Programming using JAVA

Learning Objective:

To learn Core Java fundamentals, To understand how java is used in object oriented
programming. To develop strong foundation for building projects in java.

[Total Lectures 45]

UNIT 1 : Classes in java [8]

General form of a class, declaring Objects, introducing Methods, Passing different parameter to method like int, double, String ,String[], Object , Constructors and types of Constructors, this keyword, Understanding Object class and its methods

UNIT 2: Inheritance, Packages and Interfaces [10]

Inheritance

Inheritance basics,
using super,
creating multilevel hierarchy,
method overriding,
dynamic method dispatch,
using abstract classes ,
using final

Packages, Access Protection,
Importing Packages,
Defining a Package, Finding Packages and CLASSPATH
A Short Package Example,
Access Protection, An Access Example,
Interfaces, Defining an Interface
implementing Interfaces,
Variables in Interfaces,
Interfaces Can Be Extended

UNIT 3 : Collection Framework and Exceptional Handling [10]

Collection interface
Collection classes
ArrayList, Vector, HashSet, Using Iterator

Exception handling
Exceptional Handling fundamentals,
Exception Types Uncaught Exceptions,
try and catch, multiple catch clauses,
nested try statements, throw, throws
finally

UNIT 4 : JDBC and Swing [10]

Steps to connect to database from Java
Understanding ResultSetMetadata interface
Creating GUI with JTextField, JButton, JComboBox, JLabel, JRadioButton, JCheckBox.
Understanding Layouts GridLayout, FlowLayout, BorderLayout
Create Login screen and authenticating from database

UNIT 5 : String Handling [7]

String constructor, Character extraction, charAt(), getChars(), toCharArray()
String comparison, equals() and equalsIgnoreCase(), startsWith(), endsWith()
compareTo(), Modify a string, substring(), concat(), replace(), trim(), StringBuffer
Constructor, length() and capacity(), charAt(), insert(), append(), reverse(), delete() and
deleteCharAt(), replace(), substring()

Continuous Internal Assessment
Assignments / Project
Mid Term test.
List of Text Books:
1. Java 2 Complete Reference by Herbert Schildt . --TMH Publication

List of Recommended Reference Books

1. **Java 2 Programming Black Book, Holzner**
2. **Programming with Java,E Balagurusamy**

B. VOC (Software Development)   **Course: S.BVOC.2.PR**

PRACTICALS

Practical list for PHP with MySQL
Practical No 1
Create Textbox and Button on screen. In Textbox user writes the string and on click of Button
the string gets reversed using PHP.
Practical No 2
Develop UI using PHP Application for Basic Calculator showing functionality for ADDITION,
SUBSTRACTION, MULTIPLICATION and DIVISION.
Practical No 3
Develop a UI for to accept Registration Details of a student such as RNO, Name, DOB,
GENDER, COURSE, HOBBY, HSC PERCENTAGE, ADDRESS, PHONE, EMAIL and
CATEGORY. Now store these details in MySQL database on click of ADD button.
Also when the user puts only RNO and clicks on SEARCH button all data related to that student
gets displayed.
Practical No 4
Develop a PHP Application to Authenticate User and password. If login is successful then
forward user to result Page which shows the result of that student in proper report otherwise
shows login failure Message. Also user should not be allowed to vist any page without proper
login.
Practical No 5
Integrate Regular expression in PHP to do validation and then store the details in MySQL.

1)email
2)phone no beginning with 011
3)mobile no 10 digits and starts with 8 or 9 or 7
4)emp name
5)dob

Now display the name and dob of all employees who all are >30 years age on click of DISPLAY button.

Practical No 6

Integrate Ajax with PHP to search check whether the email already exists during registration of the user on a website.

Practical No 7

Create UI with File selection option and on selection, it displays the content of file on TextArea. Also give feature for modification of file.

Practical No 8

Design screen for inventory of a shop showing

ITEM NO   DESCRIPTION   QTY   UNIT PRICE   TOTAL

Enter appropriate information. On entering ITEMNO it automatically shows UNIT PRICE and DESCRIPTION from the database. User enters QTY and TOTAL gets auto listed. After entering all records(say 5 rows or more) GRAND TOTAL gets listed.

Practical No 9

Integrate JQuery and session, cookies with PHP and create shopping cart application for mobile phones.

Practical No 10

On entering DOB in text box and submitting, it displays the age of person in years month and days.

Note: Complete any 8 from the above list.

MOS PRACTICAL LIST

1. Create a Shell Program for accepting first name and last name as argument
2. Write a Shell Program for finding whether a number is even or odd
3. Write a Shell Program for finding the sum of digits of a given number.
4. Write a Shell Program for finding maximum of 3 numbers
5. Write a Shell Program for accepting percentage and displaying grade
6. Write a Shell Program for accepting date and display day assuming date 1 is
7. Write a Shell Program for displaying factorial of a number
8. Write a C Program for finding all prime numbers within a given range
9. Write a C Program for checking whether a word is a palindrome or not
10. Write a C Program for displaying Fibonacci series

PRACTICAL LIST FOR DBMS/SQL

Learning Objective:
To introduce the concept of databases and to use SQL software for handling large data operations using queries.

List of practicals:

I) Design a table with the given fields. Use the drop table and alter table commands on the created table.

II) Use the insert, update and delete commands on the tables.

III) Apply the constraints like Primary Key , Foreign key, NOT NULL to the tables.

IV) Write a SQL query to select data from tables.

V) Write a SQL statement for implementing ALTER,UPDATE and DELETE

VI) Write a query to implement the concept of Integrity constrains

VII) Write a query for implementing the following functions:

SUM(),MAX(),MIN(),AVG(),COUNT()

VIII) Write a subquery in the where clause of the main SQL query using the subquery comparison test(=, <>, <, <=, >, >=), set membership test(IN), the existence test(EXISTS)

Assessment:
CIA and End Semester Exam based on the practicals will be conducted.

JAVA PRACTICAL LIST

Learning Objective:
To introduce the concept of object oriented programming using JAVA programming language.

List of practicals:

1. Design a program to implement the concept of a class, object and methods
   Define a class Box with instance variables height, length and breadth and methods volume() and area() to display the volume of the box and area of base of the Box. Define a method getData() to initialize the instance variables. Create 2 objects of this class and display the area and volume.

Also implement the concept of constructors and type of constructors (parameterized constructors)

2. Design a program to implement the concept of inheritance

   Create a class Rectangle that includes the data member for length and width as well as constructors to assign values and methods to display them. Derive a class named block that contains additional members to store height and constructors to assign the values and method to display the height.

3. Design a program to implement interfaces

4. Create a login screen and authenticate the user by matching username and password through database

5. Design a GUI application to input the name, roll no and marks of five subjects and display the percentage of the student

6. Design a program to implement exception handling : try and catch, throw, throws finally

7. Design a program to implement String handling functions

8. Write java program to find whether the string is a palindrome or not

Assessment:
CIA and End Semester Exam based on the practicals will be conducted.