**PARUL UNIVERSITY - Faculty of IT & Computer Science Department of Computer Application**

**SYLLABUS FOR 2nd Sem BCA PROGRAMME**

**Project-I (05101154)**

**Type of Course: BCA**

**Prerequisite:** Basic approach of problem solving methods.

**Rationale:**  To plan, schedule, and monitor the software project Development, coding, and testing of a minor project cohesively. Documentation of project

**Teaching and Examination Scheme:**

| **Teaching Scheme** | | | **Credit** | **Examination Scheme** | | | | | **Total** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Lect Hrs/ Week** | **Tut Hrs/**  **Lab Hrs/**  **Week**  **Week** | | **External Internal**  **T P T CE P** | | | | |
| 0 | 0 | 6 | 3 | 0 | 60 | 0 | 20 | 20 | 100 |

**Lect** - Lecture, **Tut** - Tutorial, **Lab** - Lab, **T** - Theory, **P** - Practical, **CE** - CE, **T** - Theory, **P** - Practical

**Contents:**

| **Sr.** | **Topic** | **Weightage** | **Teaching Hrs.** |
| --- | --- | --- | --- |
| 1 | **Guidelines**:  It is recommended that the team should be of 2-3 students. Project plan along with the division of work amongst teammates would have been prepared and got approved within a maximum of 5 days of the start of the project.  Coding standards should be followed meticulously. At the minimum, the code should be self documented, modular, and should use meaningful naming convention.  Data structure (database design) is mandatory. At least a portion of code (preferably full code) is mandatory. Student may be asked to write the code related to the project during examination.  If a student is compelled to follow certain instructions (by the external, i.e. organization¶s guide) which he/she does not agree to, such a student must prepare a supplementary report to document his/her version and present it to the examiners if such a need arises.  Internal guides (i.e. the faculty members) must devote the time allocated as per the time table to guide the students for the project. The time allocation will be in accordance with the scheme for 2nd semester.  **Criteria for Evaluation of Software Projects**  Project Definition: 10%  Related project Study Analysis: 20 %  Design & Development: 40%  Implementation & Testing: 10%  Creation of Project Report and User Manual: 20% | 100% |  |

**\*Continuous Evaluation:**

It consists of Assignments/Seminars/Presentations/Quizzes/Surprise Tests (Summative/MCQ) etc.

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**Course Outcome:**

After Learning the course the students shall be able to:

1. Working on the project will enable a student to go through rich experience in developing user defined projects.

2. Such an experience will include encountering various technical issues, finding sources to resolve the issues and finally arriving at the solution of all these issues satisfactorily.

3. Ability to document and write well.

4. Organizing the time effectively.

5. Working with teammates and generating substantial output of the team's efforts. 6. It will prepare the students for analyzing and programming for industrial problems and large projects in future.

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**PARUL UNIVERSITY - Faculty of IT & Computer Science Department of Computer Application**

**SYLLABUS FOR 2nd Sem BCA PROGRAMME**

**Python Programming (05101155)**

**Type of Course: BCA**

**Prerequisite:** Basic knowledge of Computers

**Rationale:** To acquire fundamental knowledge and apply it in Computer Application discipline

**Teaching and Examination Scheme:**

| **Teaching Scheme** | | | **Credit** | **Examination Scheme** | | | | | **Total** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Lect Hrs/ Week** | **Tut Hrs/**  **Lab Hrs/**  **Week**  **Week** | | **External Internal**  **T P T CE P** | | | | |
| 3 | 0 | 2 | 4 | 60 | 30 | 20 | 20 | 20 | 150 |

**Lect** - Lecture, **Tut** - Tutorial, **Lab** - Lab, **T** - Theory, **P** - Practical, **CE** - CE, **T** - Theory, **P** - Practical

**Contents:**

| **Sr.** | **Topic** | **Weightage** | **Teaching Hrs.** |
| --- | --- | --- | --- |
| 1 | **Introduction to Python**:  The Python programming language, What is a program?, What is  debugging?, The first program.  **Variables, expressions and statements**  10%  Values and types, Variables, Variable names and keywords,  Statements, Operators and operands, Expressions, Order of  operations, Comments, Debugging.  **Operators**:  Modulus operator, Boolean expressions, Logical operators, Conditional 10%  execution, Alternative execution, Chained conditionals, Nested  conditionals | | 5 |
| 2 | 5 |
| 3 | **User Defined Function and Introduction to Packages**: **Functions:**  Function calls, Type conversion functions, Math functions, Composition, Adding new functions, Definitions and uses, Parameters and arguments, Variables and parameters are local, Fruitful functions and void functions, Why functions?. Recursion Function  **Introduction to Packages:**  Usage of Packages, Installation of Packages, brief introduction to NUMPY Package | 20% | 9 |

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| 4 | **Python Data Structure ± I**:  **Strings**  A string is a sequence, Len, Traversal with a for loop, String slices, Strings are immutable, Searching, Looping and counting, String methods, The in operator, String comparison, Debugging.  **List**  ListA list as a sequence, Lists are mutable, Traversing a list, List operations, List slices, List methods, Map, Filter and reduce, Deleting elements, Lists and strings, Objects and values, Aliasing, List arguments. | 25% | 12 |
| --- | --- | --- | --- |
| 5 | **Python Data Structure ± II**:  **Tuples, Set, Dictionary**  **Tuples:** Python Tuples, Accessing values in Tuples, update and delete tuples Basic tuples operation, Built in Tuples Function, List Vs Tuples.  25%  **Set:** Defining set, create and accessing values in a set, set Methods, Frozenset  Dictionary: What is python Dictionary, Creating a Dictionary, Adding elements to a Dictionary, Accessing and removing an elements from Dictionary, Dictionary Methods | | 12 |
| 6 | **File Operations**:  Need of a file. Opening, closing and read/write operations in file. | 10% | 5 |

**\*Continuous Evaluation:**

It consists of Assignments/Seminars/Presentations/Quizzes/Surprise Tests (Summative/MCQ) etc.

**Reference Books:**

1. Think Python, How to Think Like a Computer Scientist (TextBook)

Allen Downey; Green Tea Press Needham, Massachusetts.

2. Beginning programming with Python for Dummies

John Paul Mueller; John Wiley & Sons

**Course Outcome:**

After Learning the course the students shall be able to:

1. Apply object-oriented programming concepts to develop dynamic interactive Python applications 2. Employ control structures, functions, and collection data structures to create Python programs 3. Design, Develop, Test and Debug program using python programming language

**List of Practical:**

**1. Write first python program to print your introduction like name, address, phone number, email id etc.**

**2. WAP to declare multiple variable with all different types of value and check data type of all declare variable using type() method.**

**3. WAP to take basic details of employee like name, phone number, email id, salary, designation, address, blood group and birth date through keyboard and print it in proper format.**

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**4. Write a menu driven program which show use of all arithmetic operators and print its result. Take input form key board.**

**5. WAP to find power and square root of given number without using inbuilt function. (note : find power using \*\* operator and square root using 0.5 value)**

**6. WAP to find simple interest for given principal amount. Take input of principal amount, rate of interest and year from user. (Intrest=(PRN)/100)**

**7. WAP menu driven program to find area of triangle, circle, rectangle, square and cylinder.**

**8. Write a menu driven program to convert kilometer to miles, Celsius to Fahrenheit, meter to centimeter, acer to square meter.**

**9. WAP to solve quadratic equation (ax2 + bx + c)**

**10. WAP to swap value of two variableswith all five possibilities a. Using temp variable b. Using + and ± Operator c. Using // and \* Operator d. Using ^ (XOR) operator e. By using concept of different value to multiple variable allocation concept**

**11. WAP to check entered number is positive, negative, zero, odd or even using if else statement.**

**12. WAP to find maximum (largest) number among three numbers. (also try for 5 numbers)**

**13. WAP to print multiplication table in proper format for entered number using for loop as well as while loop.**

**14. WAP to find number is prime or not.**

**15. WAP to print list of prime number from given interval.**

**16. WAP to find factorial of given number.**

**17. WAP to print Fibonacci series/ sequence.**

**18. WAP to find whether inputted number is Armstrong or not.**

**19. WAP to print list of Armstrong number from given interval.**

**20. WAP to find sum of natural numbers using for loop as well as while loop. 21. WAP which shows use of datetime package of python.**

**22. Write a menu driven program to create simple calculator using user defined function.** Printed on : 20-06-2020 10:52 AM Page 3 of 9

**23. WAP to find length of string without using inbuilt function len() function. 24. WAP to traverse string using for loop.**

**25. WAP which shows use slicing on string and any other data structure of python.**

**26. Write a menu driven program which shows the use of string inbuilt function and its operation like concatenation, repletion and slicing.**

**27. WAP which show how string is immutable by passing string as argument in user defined function.**

**28. Write a program to perform all bitwise operation using user defined function.**

**29. WAP to create list and perform operation like searching element, adding element, update element, removing element, traverse list in both direction left to right and right to left by passing list as argument in user defined function.**

**30. WAP to program to find binary of inputted number and store it into list and print it.**

**31. WAP program to covert list of word form given sentence by using split() method and also find position of entered word in list if it present in list else print appropriate message.**

**32. WAP to create list of words and convert only those words into upper case which start with vowels (a,e,I,o,u) other remain as it is.**

**33. WAP to create list of cube and square for upto given number. E.g. if user enter 10 than store cube and square to 1 to 10 into list.**

**34. WAP to program to create tuple and perform operation like searching, find length, slicing, also change first and last or entered index element by using concept of slicing and concatenation.**

**35. WAP to find list of prime numbers from tuple and store it into list.**

**36. WAP to create set of numbers and perform updating and deletion operation using its all inbuilt function.**

**37. WAP to perform all set operation like intersection, union, difference, symmetric difference and other operation.**

**38. WAP to remove all the duplicate element from list by using single list.**

**39. Write a Python script to generate and print a dictionary that contains a number (between 1 and n) in the form (x, x\*x). Expected Output : {1: 1, 2: 4, 3: 9, 4: 16, 5: 25} where value of n is enter by user.**

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**40. Create a dictionary which shows the occurrence/ frequency of each character present in string. [hint : if user enter ³wel come to parul university´ than your dictionary contain {a:1,b:0,c:1,d:0,e:3, f:0««` like this.**

**41. Write a Python script to concatenate following dictionaries to create a new one. Sample Dictionary : dic1={1:10, 2:20} dic2={3:30, 4:40} dic3={5:50,6:60}**

**42. Write a Python program to combine two dictionary adding values for common keys. d1= {'a':100,'b':200,'c':300}, d2={'a':300,'b':200,'d':400} Sample output: Counter({'a': 400, 'b': 400, 'd': 400, 'c': 300})**

**43. Write a python program to create dictionary of binary number up to given range. If user enter 15 than store binary number of 1 to 15 into dictionary and print it in proper format.**

**44. Write a menu driven program which shows the use of all inbuilt method of dictionary.**

**45. WAP to write your introduction like name, birth date, email id, address, contact details into file. And also print it in proper format after reading the data.**

**46. WAP which shows the use of seek() and tail() method to set and to get the position of file pointer.**

**47. WAP to store output of python script into text file. Open file using with statement.**

**48. Create below listed array using Numpy and check its data type.**

1. type1 = np.array([1, 2, 3, 4, 5, 6])

2. type2 = np.array([1.5, 2.5, 0.5, 6])

3. type3 = np.array(['a', 'b', 'c'])

4. type4 = np.array(["Canada", "Australia"], dtype='U5')

5. type5 = np.array([555, 666], dtype=float)

**49. Create below listed more than one dimensions array using Numpy and check its dimension**

1. array1d = np.array([1, 2, 3, 4, 5, 6])

2. array2d = np.array([[1, 2, 3], [4, 5, 6]])

3. array3d = np.array([[[1, 2, 3], [4, 5, 6]], [[7, 8, 9], [10, 11, 12]]])

**50. WAP Program to Transform List or Tuple into NumPy array.**

**51. Perform the following Indexing Operations using Numpy array.**

array1d = np.array([1, 2, 3, 4, 5, 6])

1. Get first value

2. Get last value

3. Get 4th value from first

4. Get 5th value from last

5. Get multiple values

**52. Perform the following Indexing Operations on Numpy array.**

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Where array2d = np.array([[1, 2, 3], [4, 5, 6], [7, 8, 9]])

a. Get first row first col (0,0) element.

b. Get first row second col (0,1) element.

c. Get first row second col (0,1) element.

d. Get second row second col (2,1) element.

**53. Perform the following Single Dimensional Slicing Operations using Numpy array.**

array1d = np.array([0, 1, 2, 3, 4, 5, 6, 7, 8, 9])

1. from index 4 to last index

2. From index 0 to 4 index

3. From index 4(included) up to index 7(excluded)

4. Excluded last element

5. Up to second last index(negative index)

6. From last to first in reverse order(negative step)

7. All odd numbers in reversed order

8. All even numbers in reversed order

9. All elements

**54. Perform the following Multidimensional Dimensional Slicing Operations using Numpy array.**

Where array2d = np.array([[1, 2, 3], [4, 5, 6], [7, 8, 9]])

1. 2nd and 3rd col

2. 2nd and 3rd row

3. Reverse an array

4. Resize array

5. Reshape array

**55. Perform the following operations to Manipulating the Dimensions and the Shape of Arrays (Flips the order of the Axes)**

array2d = np.array([[1, 2, 3], [4, 5, 6], [7, 8, 9]])

1. Permute the dimensions of an array

2. Flip array in the left/right direction

3. Flip array in the up/down direction

4. Rotate an array by 90 degrees in the plane specified by axes

**56. Perform the following operations to Manipulating the Dimensions and the Shape of Arrays (Joining and Stacking)**

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array1 = np.array([[1, 2, 3], [4, 5, 6]])

array2 = np.array([[7, 8, 9], [10, 11, 12]])

1. Stack arrays in sequence horizontally (column wise).

2. Stack arrays in sequence vertically (row wise)

3. Stack arrays in sequence depth wise (along third axis)

4.Appending arrays after each other, along a given axis

5. Append values to the end of an array

**57. Perform the following Arithmetic Operations using Numpy Array.**

array1 = np.array([[1, 2, 3], [4, 5, 6]])

array2 = np.array([[7, 8, 9], [10, 11, 12]])

1. array1 + array2

2. array1 - array2

3. array1 \* array2

4. array2 / array1

5. array1 \*\* array2

**58. Perform the following Scalar Arithmetic Operations using Numpy Array.**

array1 = np.array([[10, 20, 30], [40, 50, 60]])

1. array1 + 2

2. array1±

3. array1 \* 2

4. array1 / 5

5. array1 \*\* 2

**59. Perform the following Elementary Mathematical Functions using Numpy Array.** Printed on : 20-06-2020 10:52 AM Page 7 of 9

array1 = np.array([[10, 20, 30], [40, 50, 60]])

1. sin(array1)

2. cos(array1)

3.tan(array1)

4. sqrt(array1)

5. exp(array1)

6. log10(array1)

**60. Perform the following Element-wise Mathematical Operations using Numpy Array.**

array1 = np.array([[10, 20, 30], [40, 50, 60]])

array2 = np.array([[2, 3, 4], [4, 6, 8]])

array3 = np.array([[-2, 3.5, -4], [4.05, -6, 8]])

1. Addition & subtraction of array1 and array2

2. Multiplication & division & reminder of array1 and array2

3. Power of array1 and array2

**61. Perform the following Aggregate and Statistical Functions using Numpy Array. array1 = np.array([[10, 20, 30], [40, 50, 60]])**

1. Mean

2. Standard deviation

3. Variance

4. Sum of array elements

5. Product of array elements

**62. Use the Where(), Select() and Choose() function to identify the element is less than 4, mul by 2 else by 3. np.array([[1, 2, 3], [4, 5, 6]])**

**63. Perform the following Logical Operations using Numpy Array.**

thearray = np.array([[10, 20, 30], [14, 24, 36]])

1. logical\_or(Condition array<10, array>15)

2. logical\_and(Condition array<10, array>15)

3. logical\_not(Condition array<20)

**64. Perform the following Standard Set Operations using Numpy Array.**

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array1 = np.array([[10, 20, 30], [14, 24, 36]])

array2 = np.array([[20, 40, 50], [24, 34, 46]])

1. Find the union of two arrays

2. Find the intersection of two arrays

3. Find the set difference of two arrays

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**PARUL UNIVERSITY - Faculty of IT & Computer Science Department of Computer Application**

**SYLLABUS FOR 2nd Sem BCA PROGRAMME**

**Relational Database Management System (05101156)**

**Type of Course: BCA**

**Prerequisite:** Basic knowledge of Data and Data Processing

**Rationale:** Provide Conceptual insight about how database design and implementation takes place and relational operations of database

**Teaching and Examination Scheme:**

| **Teaching Scheme** | | | **Credit** | **Examination Scheme** | | | | | **Total** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Lect Hrs/ Week** | **Tut Hrs/**  **Lab Hrs/**  **Week**  **Week** | | **External Internal**  **T P T CE P** | | | | |
| 3 | 0 | 2 | 4 | 60 | 30 | 20 | 20 | 20 | 150 |

**Lect** - Lecture, **Tut** - Tutorial, **Lab** - Lab, **T** - Theory, **P** - Practical, **CE** - CE, **T** - Theory, **P** - Practical

**Contents:**

| **Sr.** | **Topic** | **Weightage** | **Teaching Hrs.** |
| --- | --- | --- | --- |
| 1 | **Introduction to Database System**:  Data, Information Data Management File-based Data  Management  Database Database Systems Organization of a Database  21%  Characteristics of Data in a Database DBMS, Benefits of DBMS Functions ,Components of DBMS Data dictionary, Database Users Database Architecture Data abstraction ANSI/SPARC Architecture Logical and Physical data independence Database languages,  Database Design Database constraints | | 10 |
| 2 | **Data Model and Entity Relationship Modeling**:  **Data Model**  Conceptual Physical and Logical Database Models Database relationships Hierarchical model Network Model Relational Model E-R model  **Entity Relationship Modeling**  E-R Model, Components of an E-R Model E-R conventions Relationships Composite entities Entity list, E-R diagrams E-R Modeling symbols Super class Subclass entity types Attribute inheritance Specialization, Generalization Specialization/ generalization constraints, Categorization | 21% | 10 |

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| 3 | **Relational Database Design and Relational Algebra and Calculus**: **Relational Database Design**  Relational Algebra operations Aggregate functions Update operations Types of relational calculus Domain relational calculus  **Relational Algebra and Calculus**  Relational Data structure Relational data manipulation Integrity constraints Pitfalls of Relational database design Decomposition Functional dependencies Normalization,Keys Relationships First Normal Form(1NF) Second Normal form(2NF) Third normal Form (3NF) Boyce-Codd Normal Form (BCNF) Fourth Normal Form (4NF)  Fifth Normal Form (5NF) Lossless join dependency Domain-Key Normal Form (DCNF) Denormalization | 21% | 10 |
| --- | --- | --- | --- |
| 4 | **Object Relational and Extended Relational Database**:  Database design for an ORDBMS, Nested relations and collections, 16%  Storage and access methods, An overview of SQL3, Systems  comparison of RDBMS, OODBMS and ORDBMS. | | 8 |
| 5 | **PL/SQL, Cursor and Trigger and Stored Procedures**: **PL/SQL, Cursor and Trigger**  Basic code structure, Variables, Conditional statements, looping (loop statements, while loops, for loops, cursor FOR loops), Triggers. **Stored Procedures**  Understanding the main features of stored procedures, stored procedure architecture, Advantages of using procedures. Stored procedures - functions, procedures and packages. | 21% | 10 |

**\*Continuous Evaluation:**

It consists of Assignments/Seminars/Presentations/Quizzes/Surprise Tests (Summative/MCQ) etc.

**Reference Books:**

1. Database System Concepts

Silberschatz, Korth, Sudarshan; McGraw Hill Publication; 4th Edition

2. An Introduction to Database Systems

C. J. Date, A. Kannan, S. Swamynathan; Pearson Education; 8th Edition

3. Database Systems: Concepts, Design and Applications

S. K. Singh; Pearson Education

4. SQL, PL/SQL ± The Programming Language

Ivan Bayross; BPB Publications

5. Database Management Systems

Raghu Ramakrishnan, Johannes Gehrke; McGraw Hill Publication

**Course Outcome:**

After Learning the course the students shall be able to:

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1)Understand fundamental concepts and terminologies related to DBMS and RDBMS. 2)Model and represent relationships between database entities

3)acquire skills and working knowledge in RDBMS domain

4)explain relational algebra and ORDBMS concepts

5)perform normalization of provided data and develop relational databases

6)apply PL/SQL Techniques such as cursors, stored procedures, and triggers to solve given data-driven problems.

**List of Practical:**

**1. Create a table for Customer.**

**Column Name Format**

cust\_id char(5)

Lname char(15)

Fname char(15)

Area char(2)

phone\_no number(8)

**2. Create a table for Movie**

**Column Name Format**

mv\_no number (5)

Title char(25)

Type char(10)

Star char(25)

Price number(8,2)

**3. Create a table for invoice**

**Column Name Format**

inv\_no char(3)

mv\_no number(5)

cust\_id char(5)

issue\_date date

return\_date date

**4. Insert the below Record in the Customer table.**

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**Cust\_id lname fname area Phone\_no**

a01 Patel Vijay sa 381334

a02 Saitwal Vandana mu 556037

a03 Jaguste Pramada da 372631

a04 Navindgi Basu ba 666612

a05 Sreedhran Ravi va -

a06 - Rukmini ga 512527

**5. Insert the below record in the Movie table**

mv\_no title type Star Price

1 Bloody Vengeance action Jackie Chan 180.95

2 The firm thriller Tom Cruise 200.00

3 Pretty woman romantic Richarge Gere 150.00

4 Home alone comedy Macaulay Culkin 150.55

5 The fugitive thriller Harrison Ford 200.00

6 Coma suspence Michael Douglas 100.00

7 Dracula horror Gray Oldman 150.00

8 Quick change comedy Bill Murray 100.00

9 Gone with the wind drama Clarke Gable 200.00

10 Carry on doctor comedy Leslie Phillips 100.00

**6. Insert the below record in the invoice table**

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inv\_no mv\_no cust\_id issue\_date return\_date

i01 4 a01 13-jan-96 25-jan-96

i02 3 a02 12-feb-96 15-feb-96

i03 1 a02 15-feb-96 18-feb-96

i04 6 a03 10-mar-96 13- mar -96

i05 7 a04 05-feb-96 08-feb-96

i06 2 a06 18-mar-96 21-mar-96

i07 9 a05 07-jan-96 10-jan-96

i08 9 a01 11-feb-96 14-feb-96

i09 1 a05 15-feb-96 28-feb-96

**7. Do the Following:**

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Create the table Client\_Master

**Column Name Data Type Size**

CLIENTNO Varchar2 6

NAME Varchar2 20

ADDRESS Varchar2 50

CITY Varchar2 20

PINCODE Int 8

STATE Varchar2 20

BAL\_DUE Decimal 10,2

Insert the following data into table

**CLIENTNO NAME ADDRESS CITY PINCODE STATE BAL\_DUE**

C0001 Rohan Joshi Khapaitya Chakla Surat 395003 Gujarat 15000 C0002 Mamta Mazumdar Salt Lake Kolkata 460012 West Bengal 5000 C0003 Chhaya Bankar Worli Mumbai 400054 Maharashtra 2000

C0004 Ashwini Rathod Ghangaur Ghat Udaipur 780011 Rajasthan 7000 C0005 Ivan Bayross Indiranagar Bangalore 560050 Karnataka 1500 C0006 Deepak Sharma Bandra Mumbai 400002 Maharashtra 4300 C0007 Shymali Bhide Juhu Mumbai 470912 Maharashtra 2100

**Queries:**

1. List the details of the client according to the bal\_due

2. List all clients who are located in Mumbai

3. Show different types of state in ³Client\_Master´ table by eliminating the repeated states. 4. Change the city of client no ³C0005´ to Mangalore.

5. Change the bal\_due of client no ³C0001´ to Rs. 1000

6. Delete from Client\_master where the state holds the value ´Rajasthan´

7. Add a column name ³Mobile´ of data type ³Number´ size=´ ´

8. Create a table ³Balance\_Details´ having three 3 fields (ClientNo, Name, Bal\_Due) from the source table name ³Client\_master´ and rename the field Bal\_Due to Balance.

9. Change the name of ³Client\_Master´ table to ³Customer´

**8. DO the Following:**

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**Table Name : Employee**

**Employee\_no First\_name Last\_name Salary Joining date Department** 1 John Abraham 100000 01-JAN-13 Banking 2 Michael Clarke 80000 01-APR-13 Insurance 3 Roy Thomas 70000 21-May-13 Banking 4 Tom Jose 60000 08-Dec-13 Insurance 5 Jerry Pinto 65000 11-Feb-14 Marketing 6 Philip Mathew 45000 01-Jul-14 Services 7 John Henry 55000 01-Jan-15 Technical 8 Ivan Bayross 60000 01-Aug-15 Sales

**Table Name : Incentives**

**Employee\_Ref\_Id Incentive\_date Incentive\_amount**

1 01-Feb-13 5000

2 01-Dec-13 3000

3 01-Mar-13 4000

4 21-Mar-15 4500

5 01-Sep-15 3500

**Queries:**

1. Create primary key Employee\_id in Employee Table

2. Create EMPLOYEE\_REF\_ID in INCENTIVES table as foreign key with respect to EMPLOYEE\_ID in employee table

3. Get all employee details from the employee table

4. Get First\_Name,Last\_Name from employee table.

5. Get First\_Name from employee table using alias name ³Employee Name´

6. Get First\_Name from employee table in upper case

7. Get First\_Name from employee table in lower case.

8. Get unique DEPARTMENT from employee table

**9. Queries of Employee table.**

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1. Get all employee details from the employee table order by First\_Name Ascending 2. Get all employee details from the employee table order by First\_Name descending

3. Get all employee details from the employee table order by First\_Name Ascending and Salary descending

4. Get employee details from employee table whose employee name is ³John´ (like) 5. Select \* from EMPLOYEE where FIRST\_NAME='John'

6. Get employee details from employee table whose employee name are ³John´ and ³Roy´ 7. Get employee details from employee table whose first name starts with 'J'

8. Get employee details from employee table whose first name contains 'o'

9. Get employee details from employee table whose first name ends with 'n'

10. Get employee details from employee table whose first name ends with 'n' and name contains 4 letters

11. Get employee details from employee table whose first name starts with 'J' and name contains 4 letters

12. Get employee details from employee table whose Salary greater than 60000 13. Get employee details from employee table whose Salary less than 80000

14. Get employee details from employee table whose Salary between 50000 and 80000 15. Get employee details from employee table whose name is 'John' and 'Michael'. 16. Get position of 'o' in name 'John' from employee table (skip)

17. Get employee details from employee table whose salary is minimum

18. Get employee details from employee table whose salary is maximum

19. Count the total number of department from employee table

20. Calculate the average salary of employee from employee

**10. Queries**

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1. Get First\_Name from employee table in upper case

2. Get First\_Name from employee table in lower case.

3. Get position of 'o' in name 'John' from employee table

4. Select first 3 characters of FIRST\_NAME from EMPLOYEE

5. Get FIRST\_NAME from employee table after removing white spaces from right side 6. Get FIRST\_NAME from employee table after removing white spaces from left side. 7. Get length of FIRST\_NAME of all employees from employee table

8. Get First\_Name from employee table after replacing 'o' with '$'

9. Get First\_Name and Last\_Name as single column from employee table separated by a '\_'

10. Get FIRST\_NAME ,Joining year, Joining Month and Joining Date from employee table separated by '\_'

11. Get employee details from employee table whose joining year is ³ ´

12. Get employee details from employee table whose joining month is ³January´ 13. Get employee details from employee table who joined before January 1st 2013 14. Get employee details from employee table who joined after January 31st

15. Get Joining Date and Time from employee table

16. Get difference between JOINING\_DATE and INCENTIVE\_DATE from employee and incentives table.

**11. Queries**

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1. Find out how many employees are there in each department

2. Find out total salary per department.

3. Find out the average salary per department.

4. Show list of departments who has more than 1 employee

5. Show list of department whose total salary is greater than 50000

6. Show list of department whose average salary is less than 50000

7. Show list of department whose average salary is between 50000 and 80000 8. Show the total no of employees whose joining month is same.

9. Show the total no of employees whose joining year is same.

10. Find total salary who have joined in same month

11. Find total salary who have joined in same month and total salary is greater than 50000

12. Select employee details from employee table if data exists in incentive table 13. Display the employee name of all those who received their intencives 14. Find out the employees who have their incentives less than 5000 15. Update incentive table where employee name is 'John'

16. Select first\_name, incentive amount from employee and incentives table for those employees who have incentives

17. Select first\_name, incentive amount from employee and incentives table for those employees who have incentives and incentive amount greater than 3000

18. Select first\_name, incentive amount from employee and incentives table for those employees who have incentives and incentive amount less than 3000

19. Select first\_name, incentive amount from employee and incentives table for all employes even if they didn't get incentives

**12. Do the Following:**

**Create a table as following:**

**Dept deptno Dname Loc**

10 ACCOUNTING NEW YORK

20 RESEARCH DALLAS

30 SALES CHICAGO

40 OPERATIONS BOSTON

**Emp\_no Ename Job Mgr hiredate Sal Comm Deptno** 7839 King President - 17-11-1981 5000 10

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7698 Blake Manager 7839 01-05-1981 2850 30

7782 Clerk Manager 7839 09-06-1981 2450 10

7566 Jones Manager 7839 02-04-1981 2975 20

7788 Scott Analyst 7566 13-07-1987 3000 20 7902 Ford Analyst 7566 03-12-1981 3000 20 7369 Smith Clerk 7902 17-12-1980 800 20

7499 Allen Salesman 7698 20-02-1981 1600 300 30

7521 Ward Salesman 7698 22-02-1981 1250 500 30

7654 Martin Salesman 7698 28-09-1981 1250 1400 30

7844 Turnor Salesman 7698 08-09-1981 1500 30 7876 Adams Clerk 7788 13-07-1987 1100 20 7900 James Clerk 7698 03-12-1981 950 30 7934 Miller Clerk 7782 23-01-1982 1300 10 **Queries:**

1. Select all record from emp table where deptno =10 or 40.

2. Select all record from emp table where deptno=30 and sal>1500.

3. Select all record from emp where job not in SALESMAN or CLERK.

4. Select all record from emp where ename in 'BLAKE','SCOTT','KING'and'FORD' 5. Select all records where ename starts with µS¶ and its lenth is 6 char.

6. Select all records where ename may be any no of character but it should end with µR¶ 7. List the emps who are joined in the year 1981

8. List the emps who are joined in the month of Aug 1980

9. Display the avg salaries of all CLERKS

10. List all the emps except µpresident¶ µManager¶ in asc order of salaries

11. Count MGR and their salary in emp table.

12. In emp table add comm+sal as total sal.

13. Select any salary <3000 from emp table.

14. Select all salary <3000 from emp table.

15. Select all the employee group by deptno and sal in descending order.

16. List the emps who are working under Manager

17. List all the clerks of deptno 20

18. Find the 3rd MAX salary in the emp table.

19. Find the 3rd MIN salary in the emp table.

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**13. PL/SQL Programs**

1. Hello World Program in PL/SQL.

2. PL/SQL Program To add Two Numbers.

3. PL/SQL Program For Prime Number.

4. PL/SQL Program To Find Factorial of a Number.

5. PL/SQL Program to Print Table of a Number.

6. PL/SQL Program for Reverse of a Number

7. PL/SQL Program for Fibonacci Series

8. PL/SQL Program to Check Number is Odd or Even

9. PL/SQL Program to Reverse a String

10. Pl/SQL Program for Palindrome Number

11. PL/SQL Program to Swap two Numbers

12. PL/SQL Program for Armstrong Number

13. PL/SQL Program to Find Greatest of Three Numbers

14. PL/SQL Program to Print Patterns

**14. PL/SQL Cursor Programs**

1.Write a Program for Implicit Cursor

2. Write a Program For Explicit Cursor

**15. Trigger Programs**

**Create three tables**

**Student (Roll\_no, Name, Contact, Marks)**

**Student\_copy (Roll\_no, Contact)**

**Student\_update\_copy (Roll\_no, New\_Contact, Old\_contact)**

A. Create a trigger to insert Roll no and Contact number of student on insertion of any record in Table Student.

B. Create a trigger to insert Roll no New Contact number and old Contact number of student on updation of contact number in Table Student.

**16. Procedure Programs.**

1. Write a procedure to insert data in employee table.

2. Write a procedure to update contact number of employee in employee table. 3. Write a procedure to find name of manager for given employee id.

4. Write a procedure to get all the details (emp\_id, name, city of residence,

5. company name, city of work, manager name, salary) of given employee id. Printed on : 20-06-2020 10:53 AM Page 12 of 12

**PARUL UNIVERSITY - Faculty of IT & Computer Science Department of Computer Application**

**SYLLABUS FOR 2nd Sem BCA PROGRAMME**

**Business Information Systems (05101201)**

**Type of Course: BCA**

**Prerequisite:** Basic Knowledge of computer systems and Business Terms

**Rationale:** The objective of this course is to familiarize students with basics of Business Information Systems and its importance

**Teaching and Examination Scheme:**

| **Teaching Scheme** | | | **Credit** | **Examination Scheme** | | | | | **Total** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Lect Hrs/ Week** | **Tut Hrs/**  **Lab Hrs/**  **Week**  **Week** | | **External Internal**  **T P T CE P** | | | | |
| 3 | 0 | 0 | 3 | 60 | 0 | 20 | 20 | 0 | 100 |

**Lect** - Lecture, **Tut** - Tutorial, **Lab** - Lab, **T** - Theory, **P** - Practical, **CE** - CE, **T** - Theory, **P** - Practical

**Contents:**

| **Sr.** | **Topic** | **Weightage** | **Teaching Hrs.** |
| --- | --- | --- | --- |
| 1 | **Business and Management Information**:  Business Organization, Business Work Area,Business  Information,Levels of Information,Categories of Information,Quality of Information, Management Information, Management Reports-System 25%  Theory,Deterministic and Probabilistic Systems,Closed and Open  Systems,Regulation in Systems Open-loop Systems,Data systems and Users-User requirements-User/D.P. staff cooperation, User knowledge and training, Personnel, Steering committees  **Computer Files and Databases**:  Business Files, Data Storage Media, Direct Access File Organization, Data Modeling: Documenting Information Architecture, User¶s View of 25%  a Computerized Database, Database Management Systems (DBMS), Text, Database and Hypertext, Evaluating Information Used in  Business Processes, Models as Components of Information Systems  **Communication, Decision Making and Different Types of**  **Information System**:  Basic Communication Concepts, Personnel, Impersonal and  Anonymous Communication-Time, place and Direction of  25%  Communication, Data Communication, Data Transmission, Types of Networks, Basic Decision Making Concepts, Steps for Decision Making Process, Transaction Processing System | | 12 |
| 2 | 12 |
| 3 | 12 |
| 4 | **Various Systems**:  Inventory Management (INMANS) System Design, Account Payable System (ACPAYS) Design, Payroll System (PAYSY) Design | 25% | 12 |

**\*Continuous Evaluation:**

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It consists of Assignments/Seminars/Presentations/Quizzes/Surprise Tests (Summative/MCQ) etc.

**Reference Books:**

1. Business Information Systems

Muneesh Kumar; Vikas Publishing House Pvt. Ltd; First Edition

2. Information Technology & System Audit (TextBook)

C A Pankaj Goel; AJ publication; First Edition

**Course Outcome:**

After Learning the course the students shall be able to:

1. Describe use and functions of management information systems

2. Analyze requirements for developing information systems to support strategic business operations 3. Understand how IT helps in shaping the operations of business environment 4. Explain need of information gathering and decision-making tools in taking rational decisions. 5. Recognize need for applications of MIS in manufacturing and service sector

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**PARUL UNIVERSITY - Faculty of IT & Computer Science Department of Computer Application**

**SYLLABUS FOR 2nd Sem BCA PROGRAMME**

**Open Source Technology using PHP (05101204)**

**Type of Course: BCA**

**Prerequisite:** Basic Knowledge of HTML and Internet

**Rationale:** Web Development skills for Computer Science Student.

**Teaching and Examination Scheme:**

| **Teaching Scheme** | | | **Credit** | **Examination Scheme** | | | | | **Total** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Lect Hrs/ Week** | **Tut Hrs/**  **Lab Hrs/**  **Week**  **Week** | | **External Internal**  **T P T CE P** | | | | |
| 3 | 0 | 4 | 5 | 60 | 30 | 20 | 20 | 20 | 150 |

**Lect** - Lecture, **Tut** - Tutorial, **Lab** - Lab, **T** - Theory, **P** - Practical, **CE** - CE, **T** - Theory, **P** - Practical

**Contents:**

| **Sr.** | **Topic** | **Weightage** | **Teaching Hrs.** |
| --- | --- | --- | --- |
| 1 | **Overview of Web**:  Introduction Websites : Static and Dynamic, Client side & Server Side Scripting ,Web Server (IIS & Apache), Protocols : HTTP,HTTPS &  7%  FTP, ISP and its Services, Web Hosting, Virtual Host, Multi-Homing , Document Root  **Configuration & Installation of PHP**:  System Requirements for PHP, PHP installation & Configuration in IIS / 5%  Apache Web Server, Working with WAMP / XAMP, Php.ini & .ht  access files  **PHP Basics:**:  Overview of PHP, PHP syntax, How PHP Code Works, Creating & 10%  Running PHP Webpage, PHP variable & its scope : local, global, static, parameter, PHP Operators, Conditional Structure, Looping Structure | | 4 |
| 2 | 2 |
| 3 | 4 |
| 4 | **PHP Arrays & Functions**:  PHP Array, Indexed Arrays, Associative Arrays, Loop through Indexed & Associative Arrays, Array Lib. Functions : Count, current, next, previous, end, sort, rsort, assort, arsort, array\_merge, array\_reverse, array\_diff(), array\_shift(), array\_slice(), array\_unique(), array\_unshift(), array\_keys(), array\_key\_exists(), array\_push(), array\_pop(), array\_multisort(), array\_search(), PHP Functions, Functions with arguments, Miscellaneous Functions : define, constant, include, require, header, die, exit | 13% | 8 |

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| 5 | **Handling Form**:  HTML Form element & its attributes, Send Form data using GET Method & POST Method, Receive Form data using $\_GET, $\_POST & $\_REQUEST variables, File uploading, Mail sending using mail() | 10% | 4 |
| --- | --- | --- | --- |
| 6 | **State Management**:  Query string, Cookies, Session,Hidden fields 5%  **Working with MySQL**:  Introduction to MySQL, MySQL Data Types.  **MySQL functions:** mysql\_connect, mysql\_close, mysql\_error,  msyql\_errno, mysql\_select\_db, mysql\_query, mysql\_fetch\_array,  15%  mysql\_num\_Rows, mysql\_affected\_Rows, mysql\_fetch\_assoc,  mysql\_fetch\_field ,mysql\_fetch\_object,mysql\_fetch\_ row  ,mysql\_insert\_id, mysql\_num\_fields, mysql\_result, mysql\_tablename , mysql\_list\_tables, mysql\_list\_field s, mysql\_field\_type ,  mysql\_db\_name ,mysql\_db\_query , mysql\_data\_seek  **Object Oriented Programming with PHP**:  Classes & Objects, Constructor & destructor, Declaring & accessing 10%  methods & Properties, Inheritance, Abstract class & methods,  Exception handling  **PHP with Ajax & Jquery**:  Introduction to Ajax, How Ajax works with PHP, Introduction to JQuery, 10%  How JQuery works, Jquery Syntax, Jquery Selectors, Jquery Events & Methods, Jquery Effects | | 2 |
| 7 | 8 |
| 8 | 5 |
| 9 | 5 |
| 10 | **Content Management System**:  Introduction to CMS, overview of CMS, Advantages of CMS, Word press [ Introduction & Installation ], working with word press , themes , plugins, widgets, user roles, creating Posts & Pages. | 15% | 6 |

**\*Continuous Evaluation:**

It consists of Assignments/Seminars/Presentations/Quizzes/Surprise Tests (Summative/MCQ) etc.

**Reference Books:**

1. Beginning PHP 5.3

Matt Doyle; Wrox

2. PHP Bible

Tim Converse, Joyce Park; First Edition

3. Professional PHP 5

Ed Lecky-Thompson, Heow Eide-Goodman, Steven D. Nowicki, Alec Cove

**Course Outcome:**

After Learning the course the students shall be able to:

1. Understand significance of open source technology

2. Design and develop data driven web application in PHP and MYSQL .

3. Develop dynamic web application using ajax, JavaScript and object oriented principle in PHP

**List of Practical:**

**1. display hello world**

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**Write a PHP Script that will display hello world**

**2. calculate sum**

**Write PHP script that will take three integer values for and calculate sum of it. 3. calculate average of three values**

**In above PHP script calculate average of three values.**

**4. take two strings and concatenate it.**

**Write a PHP Script that will take two strings and concatenate it.**

**5. swap two integer values**

**Write a PHP Script that will assign two integer values and swap their values. 6. swap two integer values without third variable.**

**Write PHP Script that will assign two integer values and swap their values without third variable.**

**7. perform arithmetic operations**

**Write a PHP Script that will assign two integer values that will perform arithmetic operations and display it in tabular format**

**8. two numbers and check their equality**

**Write a PHP Script that will assign two numbers and check their equality**

**9. check they are identical or not**

**Write a PHP Script that will assign two numbers and check they are identical or not 10. check number is positive or negative**

**Write a PHP Script that will check number is positive or negative**

**11. Even or Odd**

**Write a PHP Script that will check number is Even or Odd.**

**12. check number is divisible by 13 and 7**

**Write a PHP Script that will check number is divisible by 13 and 7**

**13. Pattern**

**1**

**12**

**123**

**1234**

**14. pattern**

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**1**

**22**

**333**

**4444**

**15. Pattern**

**1234**

**123**

**12**

**1**

**16. pattern**

**4444**

**333**

**22**

**1**

**17. nested for loop that creates a chess board**

**Write a PHP script using nested for loop that creates a chess board as shown below. 18. find out max number.**

**Write a PHP function that will take three integer values and find out max number. 19. function that will take an integer value and return sum of digits.**

**Write a PHP function that will take an integer value and return sum of digits. 20. calculate the factorial of a number**

**Write a function to calculate the factorial of a number (non-negative integer). The function accept the number as a argument**

**21. check a number is prime or not**

**Write a PHP function to check a number is prime or not.**

**22. reverse a string.**

**Write a PHP function to reverse a string.**

**23. function that checks whether a passed string is palindrome or not**

**Write a PHP function that checks whether a passed string is palindrome or not?**

**24. simple PHP class which displays the following string : 'MyClass class has initialized !'**

**Write a simple PHP class which displays the following string : 'MyClass class has initialized !'**

**25. simple PHP class which displays an introductory message**

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**Write a simple PHP class which displays an introductory message like "Hello All, I am ALKA", where "ALKA" is an argument value of the method within the class.**

**26. sorts an ordered integer array**

**Write a PHP class that sorts an ordered integer array with the help of sort() function 27. PHP Calculator**

**Write a PHP Calculator class which will accept two values as arguments, then add them, subtract them, multiply them together, or divide them on request.**

**28. Calculate the difference between two dates using PHP OOP approach.**

**Calculate the difference between two dates using PHP OOP approach.**

**Sample Dates : 1981-11-03, 2013-09-04**

**Expected Result : Difference : 31 years, 10 months, 1 days**

**29. convert string to Date and DateTime**

**Write a PHP script to convert string to Date and DateTime.**

**Sample Date : '12-08-2004'**

**Expected Output : 2004-12-08**

**Note : PHP considers '/' to mean m/d/Y format and '-' to mean d-m-Y format. 30. take name and message from user and display it.**

**Write a HTML Form & PHP Script that will take name and message from user and display it. 31. guessing game,**

**Write a PHP Script for guessing game,which will take one number from user and check that number is right or wrong**

**32. count the number of guessing attempts using hidden fields**

**In above PHP Script count the number of guessing attempts using hidden fields 33. displays the marksheet of the student.**

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**Write a php page and create a user form which asks for marks in five subjects out of 100 and**

**then displays the marksheet of the student. The format is as follows:**

**Name of Student\*:**

**Marks in Each Subject**

**Subject 1\* :**

**Subject 2\* :**

**Subject 3\* :**

**Subject 4\* :**

**Subject 5\* :**

**Total Marks Obtained:**

**Total Marks:**

**Note: All the entries marked (\*) are to be input by the user. And use a submit button to post the**

**entries in the form using the POST method.**

1. **Write a php page and create a user form which asks for marks in five subjects out of 100 and**

**then displays the marksheet of the student. The format is as follows:**

**Name of Student\*:**

**Marks in Each Subject**

**Subject 1\* :**

**Subject 2\* :**

**Subject 3\* :**

**Subject 4\* :**

**Subject 5\* :**

**Total Marks Obtained:**

**Total Marks:**

**Note: All the entries marked (\*) are to be input by the user. And use a submit button to post the**

**entries in the form using the POST method.**

**34. send mail**

**Write a PHP Script that will be used for mail send.**

**35. XSORDG D ILOH**

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**Write a php script that will help to upload a file.**

**36. create an IMCA database**

**Write a PHP that will create an IMCA database**

**37. create sem\_5 table under IMCA Database**

**Write a PHP Script that will create sem\_5 table under IMCA Database**

**38. insert data into sem\_5 table.**

**Write a PHP Script that will insert data into sem\_5 table.**

**39. display records of sem5 table in tabular format.**

**Write a PHP Script that will display records of sem5 table in tabular format. 40. delete records from sem\_5 table.**

**Write a PHP Script that will delete records from sem\_5 table.**

**41. drop table sem\_5 from database**

**Write a PHP Script that will drop table sem\_5 from database**

**42. load content from text file using ajax.**

**Write a PHP Script that will load content from text file using ajax.**

**43. suggest namelist to user on key enter event using ajax**

**Write a PHP Script that will suggest namelist to user on key enter event using ajax 44. display employee information on selection of name using ajax.**

**Write a PHP Script that will display employee information on selection of name using ajax. 46. jquery code that hide / show text on button click event**

**Write a jquery code that hide / show text on button click event**

**47. jquery code that will fade in, fade out,fade toggle images on click event Write a jquery code that will fade in, fade out,fade toggle images on click event 48. slide up, slide down and slide togle panel on click event.**

**Write a jquery code that will slide up, slide down and slide togle panel on click event.** Printed on : 10-06-2020 03:56 PM Page 7 of 7

**PARUL UNIVERSITY - Faculty of IT & Computer Science Department of CDC**

**SYLLABUS FOR 2nd Sem BCA PROGRAMME**

**Communication Skills - II (05193152)**

**Type of Course: BCA**

**Prerequisite:**

**Rationale:** Communication confidence laced with knowledge of English grammar is essential for all engineers.

**Teaching and Examination Scheme:**

| **Teaching Scheme** | | | **Credit** | **Examination Scheme** | | | | | **Total** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Lect Hrs/ Week** | **Tut Hrs/**  **Lab Hrs/**  **Week**  **Week** | | **External Internal**  **T P T CE P** | | | | |
| 2 | 2 | 0 | 4 | 0 | 0 | 0 | 100 | 0 | 100 |

**Lect** - Lecture, **Tut** - Tutorial, **Lab** - Lab, **T** - Theory, **P** - Practical, **CE** - CE, **T** - Theory, **P** - Practical

**Contents:**

| **Sr.** | **Topic** | **Weightage** | **Teaching Hrs.** |
| --- | --- | --- | --- |
| 1 | **Body Language**:  The students will be shown the positive and negative body languages and will  3%  be taught how to project a better body language in personal and  professional life with help of interactive videos, exercises and Activities.  **Goal Setting**:  Goal setting involves helping the students to make clear cut achievable 3%  goals. This session will teach the students, how to plan, execute and realise their goals  **Habit formation**:  The students will be given a detailed study about the formation of  5%  habits and its effects. They will also be taught different techniques to cultivate good habits that will help them to refine themselves.  **Impression Management**:  Will lead to understanding of how controlling self-presentation and managing behavior in certain situations, to take control over the  5%  impression left on others will help maintain a good reputation, and allow others to see the value one brings to the table | | 2 |
| 2 | 2 |
| 3 | 2 |
| 4 | 2 |
| 5 | **Simple and effective communication**:  This session involves self awareness, behaviours, communication, listening, empathy and tips and techniques for understanding others better. It will help the students to have a better relation with people both personally and professionally. | 3% | 2 |

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| 6 | **Team building**:  This session is dedicated to make the students understand the importance of Team work and how to work as a team. It involves activities that will help the students break the ice amongst them and to work productively as a team. | 5% | 2 |
| --- | --- | --- | --- |
| 7 | **Tenses**: 5% **Classification of sentences**: 5% **Adjectives and Adverbs**: 5% **Forms and Speech and Voice**: 5% **Punctuations**: 3% **Email and letter writing**: 5% **Report and Proposal writing**: 3% **Listening to workplace communication**: 3% **Speaking - Participating in discussions**: 5% **Reading Introduction**: 5% **Note Writing**: 3% **Memo Writing**: 3% **Listening Skills ± Questions**: 5% **Listening Skills worksheet**: 2% **Listening Skills**: 5% **Listening Skills Activity**: 2% **Speaking Skill Building Introduction**: 4% **Speaking-Skill Building IS 16-04**: 4% | | 2 |
| 8 | 2 |
| 9 | 2 |
| 10 | 2 |
| 11 | 2 |
| 12 | 2 |
| 13 | 2 |
| 14 | 2 |
| 15 | 2 |
| 16 | 1 |
| 17 | 1 |
| 18 | 1 |
| 19 | 2 |
| 20 | 1 |
| 21 | 2 |
| 22 | 1 |
| 23 | 2 |
| 24 | 2 |
| 25 | **Speaking Skill Building Activity**: | 4% | 2 |

**\*Continuous Evaluation:**

It consists of Assignments/Seminars/Presentations/Quizzes/Surprise Tests (Summative/MCQ) etc.

**Reference Books:**

1. Booklets on English Grammar and Communication confidence

2. Word Power Made Easy

Norman Lewis; Goyal Publishers

3. Understanding and Using English Grammar

Betty Azar & Stacy Hagen; Pearson Education

4. Made to Stick: Why some ideas take hold and others come unstuck

Chip and Dan Heath; RHUK Publication

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**Course Outcome:**

After Learning the course the students shall be able to:

1. Come to terms with basics of English grammar

2. Display high level of communication confidence

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