

**SEMESTER III**

<b>CODE</b>	<b>COURSE TITLE</b>
18CMUC304	CORPORATE ACCOUNTING – I

<b>Category</b>	<b>CIA</b>	<b>ESE</b>	<b>L</b>	<b>T</b>	<b>P</b>	<b>Credit</b>
Core	25	75	87	3	-	4

**Preamble**

- ❖ After the successful completion of the course the student should have a thorough knowledge on the accounting practice prevailing in the corporate.

**Course Outcomes**

On the successful completion of the Course, students will be able to

<b>CO Number</b>	<b>CO Statement</b>	<b>Knowledge Level</b>
CO1	Acquire the knowledge on issue of shares.	K1
CO2	Inculcate the practical knowledge of issue and redemption of preference shares.	K2
CO3	Enable to understand the accounting entries relating to redemption of debentures.	K2 & K3
CO4	Create knowledge about acquisition of business and analyse the profits prior to incorporation.	K3
CO5	Apply the accounting techniques in preparing final accounts of joint stock companies as per the revised schedule VI.	K2 & K3

**Mapping with Programme Outcomes**

<b>COs</b>	<b>PO1</b>	<b>PO2</b>	<b>PO3</b>	<b>PO4</b>	<b>PO5</b>
<b>CO1</b>	S	M	S	S	S
<b>CO2</b>	S	S	S	S	S
<b>CO3</b>	S	M	S	S	S
<b>CO4</b>	S	S	S	S	S
<b>CO5</b>	S	M	S	S	S

S – Strong, M- Medium

## Syllabus

### UNIT I

18 Hrs

Issue of shares – Books to be maintained - Allotment of shares – Issue of shares at premium and at discount – Forfeiture and Re-Issue of Shares. Underwriting of shares.

### UNIT II

18 Hrs

Issue and Redemption of Preference shares.

### UNIT III

18 Hrs

Issue and Redemption of Debentures.

### UNIT IV

18 Hrs

Acquisition of business and profits prior to incorporation.

### UNIT V

18 Hrs

Preparation and presentation of final accounts of joint stock companies as per the revised schedule VI - Determination of Managerial remuneration – Divisible Profits and Dividends.

**Note: Distribution of marks for Theory and problems shall be 20% and 80% respectively.**

## Text Books

S.No.	Author	Title of the Book	Publisher	Year and Edition
1	Reddy.T.S & A.Murthy	Corporate Accounting	Margham Publications, Chennai	6 <sup>th</sup> Revised Edition, 2015.

## Reference Books

S. No.	Author	Title of the Book	Publisher	Year and Edition
1	Gupta.R.L & M.Radhaswamy	Advanced Accountancy	Sultan Chand & Sons Educational Publishers, New Delhi	Vol. II, 13 <sup>th</sup> Revised Edition, 2007.
2	Jain.S.P & K.L.Narang	Advanced Accountancy	Kalyani Publishers, New Delhi	Vol. II, 16 <sup>th</sup> Revised Edition, 2009.
3	Shukla.M.C. & T.S.Grewal	Advanced Accountancy	S.Chand & Company Ltd, New Delhi	17 <sup>th</sup> Edition, 2011.

## Web Resources

- <https://www.toppr.com/guides/accountancy/accounting-for-share-capital/nature-and-classes-of-shares-and-issue-of-shares/>
- <https://www.owlgen.com/question/explain-the-issue-and-redemption-of-preference-shares>
- <https://www.toppr.com/bytes/debenture/>
- <http://www.yourarticlelibrary.com/company/company-incorporation/profitloss-prior-to-incorporation-accounting-methods/73141>

## Pedagogy

- Lecture, Chalk & Talk and Assignment

### SEMESTER –III

CODE	COURSE TITLE
18CMUC306	DATABASE MANAGEMENT SYSTEM

Category	CIA	ESE	L	T	P	Credit
Core	25	75	72	3	-	4

#### Preamble

- ❖ On successful completion of the course the students should understand the Architectural Concept, Structural Embedded SQL, Hierarchical Approach and Network Concept.

#### Course Outcomes

On the successful completion of the course, students will be able to

CO Number	CO Statement	Knowledge Level
CO1	Understand the basic concepts and the applications of database system.	K1,K2
CO2	Familiarize the relational database theory and formulate the relational algebra expressions for queries.	K2
CO3	Identify the embedded SQL and apply knowledge to the normalization of a database.	K4
CO4	Apply the tree structured relationship in hierarchical model.	K3
CO5	Familiarize the concept of database task group system.	K2

#### Mapping with Programme Outcomes

CO <sub>s</sub>	PO1	PO2	PO3	PO4	PO5
CO1	S	S	S	S	S
CO2	S	M	S	M	S
CO3	S	S	M	S	M
CO4	S	S	S	M	S
CO5	S	M	S	M	S

S-Strong; M-Medium

## Syllabus

### UNIT I (12 Hrs.)

Database System Architecture Basic Concepts: Data System, Operational data, data independence – Architecture for a Database System, Distributed Database. Data structures and Corresponding Operators: Introduction, Relational Approach, Hierarchical approach, Network Approach.

### UNIT II (12 Hrs.)

Relational Approach: Relational Data Structure, Relation, Domain, Attributes, Keys, Relational Algebra: Introduction, Traditional Set Operation - Set Operation. Attribute names for Derived Relations, Special Relational Operations.

### UNIT III (12 Hrs.)

Embedded SQL: Introduction - Operations Not Involving Cursors - Dynamic statements Query by example - Retrieval operations, built in-functions, update operation, QBE Dictionary. Normalization: Functional dependency first, second, third normal forms, relations with more than one candidate key, good and bad decomposition.

### UNIT IV (12 Hrs.)

Hierarchical Approach: IMS data structure, Physical Database, database description. Hierarchical sequence external levels of IMS: Logical databases, the program communication block. IMS data Manipulation: Defining the program communication block: DL/I examples.

### UNIT V (12 Hrs.)

Network Approach: Architecture of DBTG system, DBTG Data Structure; the set construct, singular sets, sample schema, the external level of DBTG-DBTG data manipulation.

### Text Books

Sl.No.	Author Name	Title of the Book	Publisher	Year and Edition
1.	Date.C.J,	An Introduction to database Systems	Narosa Publishing House, New Delhi	2002, 3 <sup>rd</sup> edition.

### Reference Books

Sl.No.	Author Name	Title of the Book	Publisher	Year and Edition
1.	Abraham Silberschatz Henry F Korth	Database Systems Concepts	Tata McGraw Hill Companies, New York	2011, 6 <sup>th</sup> Edition.
2.	Bipin C. Desai	An Introduction to Database System	Galgotia Publications Pvt. Ltd., New Delhi	2002, 1 <sup>st</sup> edition.
3.	Pannerselvam.R. B.	Database Management System	Prentice- Hall of India, New Delhi	2003

### Web Resources

- <https://searchsqlserver.techtarget.com/definition/database-management-system>
- <https://www.geeksforgeeks.org/database-management-system-introduction-set-1/>
- <http://codex.cs.yale.edu/avi/db-book/db4/slide-dir/ch1-2.pdf>
- <https://www.tutorialspoint.com/dbms/>

**SEMESTER III**

<b>CODE</b>	<b>COURSE TITLE</b>
18CMUCP02	CORE PRACTICAL - COMPUTER APPLICATIONS PRACTICAL – II -ORACLE –SQL

<b>Category</b>	<b>CIA</b>	<b>ESE</b>	<b>L</b>	<b>T</b>	<b>P</b>	<b>Credit</b>
Core	40	60	-	-	60	3

**Preamble**

- ❖ Gains Knowledge about structured query language (SQL) and access data in an oracle database.

**Course Outcomes**

On the successful completion of the Course, students will be able to

<b>CO Number</b>	<b>CO Statement</b>	<b>Knowledge Level</b>
CO1	Implement various basic data structures and its operations.	K1& K2
CO2	Create SQL statements that retrieve any required data.	K2 & K3
CO3	Enhance to modify and summarize the data for reporting.	K2 & K3

**Mapping with Programme Outcomes**

<b>COs</b>	<b>PO1</b>	<b>PO2</b>	<b>PO3</b>	<b>PO4</b>	<b>PO5</b>
<b>CO1</b>	M	S	M	S	S
<b>CO2</b>	S	M	L	S	S
<b>CO3</b>	S	S	S	S	S

S – Strong, M- Medium, L – Low

## Syllabus

1. Create a table “Company” with the following fields and insert values for 10 employees.

Field Name	Field Type	Field Size
Company Name	Character	15
Proprietor	Character	15
Address	Character	25
Supplier Name	Character	15
No of employees	Number	4
GP Percent	Number	6 with 2 decimal places

### Queries:

- Display the structure of the table.
  - Display all the records of the company in ascending order by company name.
  - Display the details of the Company whose GP percent is greater than 20.
  - Display the details of the Company having the number of employees ranging from 300 to 1000.
  - Display the name of the company whose address is Erode or Coimbatore.
2. Create a table named “Employee” with the following fields and insert the values.

Field Name	Field Type	Field Size
Employee Name	Character	15
Employee Code	Number	6
Address	Character	25
Designation	Character	15
Grade	Character	1
Date of Joining	Character	15
Salary	Number	10 with 2 decimal places

### Queries:

- Display the name of the employee whose salary is less than Rs. 10,000
  - Display the details of employees in descending order according to Employee Code.
  - Display the total salary of the employee whose grade is “A”.
  - Update the Salary of a Particular record with new Salary.
  - Display the details of the employee earning the highest Salary.
  - Display the name of the employee who earns more than “Ravi”.
3. Create table “Student” with the following fields and insert the values.

Field Name	Field Type	Field Size
Student Name	Character	15
Gender	Character	6
Roll No	Character	10
Department	Character	15
Address	Character	25
Percentage	Number	4 with 2 decimal places

### Queries:

- Calculate the average percentage of students.
- Display the names of the students with same Gender.
- Display the details of the students whose department name contains a null value.
- Display the details of the students whose percentage is between 50 and 70.
- Display the details of the students whose percentage is greater than the percentage of the Roll No 12CA01.

4. Create a table “Product” with following fields and insert the values:

<b>Field Name</b>	<b>Field Type</b>	<b>Field Size</b>
Product Id	Number	6
Product Name	Character	15
Measurement	Character	15
Quantity	Number	6 with decimal places
Total Amount	Number	8 with decimal places

**Queries:**

- Add Price per unit field in the Table.
- Calculate the total amount of the Product using Update.
- Select the records whose measurement is in “Kg”.
- Select the records whose quantity is greater than 10 and less than or equal to 20.
- Calculate the entire total amount.
- Calculate the number of records whose unit price is greater than 50.

5. Create a table PAYROLL with the following fields and insert the values:

<b>Field Name</b>	<b>Field Type</b>	<b>Field Size</b>
Employee No	Number	8
Employee Name	Character	8
Department	Character	10
Basic Pay	Number	8 with 2 decimal places
HRA	Number	6 with 2 decimal places
DA	Number	6 with 2 decimal places
PF	Number	6 with 2 decimal places
Net Pay	Number	8 with 2 decimal places

**Queries:**

- Update the records to calculate the net pay
- Add Primary key for the column employee number.
- List the employees whose names have the second character as a or s.
- Select the details of the employees whose HRA greater than or equal to 1000 and DA less than or equal to 900
- List out the minimum net pay of employee.

6. Create a table Publisher and Book with the following fields:

<b>Field Name</b>	<b>Field Type</b>	<b>Field Size</b>
Publisher Code	VarChar	5
Publisher Name	VarChar	20
Publisher City	VarChar	12
Publisher State	VarChar	10
Title of book	VarChar	15
Book Code	VarChar	5
Book Price	VarChar	5

**Queries:**

- Show the different type of publishers name.
- Show the details of the book with price greater than 300.
- Remove the details of the book where the publisher name is ‘Kalyani’.
- Select the book code, book title, book price and sort by book price
- Count the number of books whose Publisher Name is “sultan chand”
- Find the name of the publisher starting with “S”

7. Create a Table Deposit and Loan with the following fields:

<b>Field Name</b>	<b>Field Type</b>	<b>Field Size</b>
Account No	VarChar	6
Branch Name	VarChar	15
Customer Name	VarChar	20
Balance Amount	VarChar	10
Deposit	VarChar	15
Loan Number	VarChar	7
Loan Amount	VarChar	6

**Queries:**

- a) Display the records with Deposit and Loan amount.
  - b) Display the details of the Customers in Alphabetical order who have a loan at Coimbatore branch.
  - c) Find the average account balance at the Coimbatore branch.
  - d) Update deposit to add interest at 5% to the balance.
  - e) Arrange the records in descending order of the loan amount
  - f) Find the maximum loan amount
  - g) Find the total amount of deposit in “Erode” branch.
8. Create any two departments of a company and execute the following queries
- a) Display the records of table1 and table2.
  - b) Display the details of table1 whose salary is less than 40,000 and whose address is in Erode.
  - c) Combine the two tables using union all.
  - d) Select the common fields using intersect operator
  - e) Arrange the records of the table2 in the order of their department number.
  - f) Select the specific field by using group by method in table2
9. Create “Purchase department” table with the following attributes: name , designation, salary, experience, working hours
- a) Show records whose salary is more than 5000 and less than 10,000
  - b) Display the records with working hours not equal to 18
  - c) Display the details of the employee whose experience matches with the given experience using “in”.
  - d) Select designation of employee whose salary is not Rs.5000 using “not in”.
10. Create a table “Programmer details” with the necessary fields
- a) Count the Male Programmer whose salary is between 10,000 and 20,000
  - b) Change the table name.
  - c) Modify the ‘name’ field to hold maximum of 30 characters.
  - d) Drop the first column in the table.
  - e) Use a sub query to display the details of a programmer whose birth date is minimum among others.
  - f) Create a view table for the fields programmer name and designation of the table.



### SEMESTER III

CODE	COURSE TITLE
18CMUA303	ENTERPRISE RESOURCE PLANNING

Category	CIA	ESE	L	T	P	Credit
Allied - III	25	75	72	3	-	5

#### Preamble

- ❖ To acquire knowledge about Enterprise Resource Planning in the Business Concern, disseminate over ERP system and decision support system practiced in Business Concern.

#### Course Outcomes

On the successful completion of the course, students will be able to

CO Number	CO Statement	Knowledge Level
CO1	To generalize the fundamental principles, concepts and tools used in ERP	K1&K2
CO2	Identify and describe typical functionality in an ERP system.	K2&K3
CO3	Apply key technical terminology for ERP development.	K3
CO4	Understand the concepts of reengineering and its applications to ERP system.	K2
CO5	Implement the various modules to meet the emerging needs of business.	K3

#### Mapping with Programme Outcomes

CO <sub>s</sub>	PO1	PO2	PO3	PO4	PO5
CO1	S	S	S	S	S
CO2	S	M	M	M	M
CO3	S	S	S	M	M
CO4	S	M	S	M	M
CO5	S	S	S	S	S

S-Strong; M-Medium

## Syllabus

### UNIT – I

(15 Hrs.)

Introduction to ERP- Conceptual Model of ERP- Evolution of ERP- Structure of ERP- Reasons for Growth- Advantages of ERP- Enterprise an overview.

### UNIT – II

(15 Hrs.)

Related technologies: Business process Re-Engineering- Management Information System- Decision Support System- Exclusive Information System- Data warehousing- Data Mining- OLAP- Supply Chain Management.

### UNIT – III

(15 Hrs.)

ERP- Manufacturing perspective- Materials Requirement Planning- Distribution Requirements Planning- JIT- CAD/CAM- Product Data Management.

### UNIT – IV

(15 Hrs.)

ERP Implementation Life cycle: Introduction- Pre- evaluation screening- Project Planning- Gap Analysis- Re-engineering- Configuration-Implementation.

### UNIT – V

(15 Hrs.)

Future directions in ERP: New markets- New Channels- Faster implementation Methodologies- Business Models.

## Text Books

Sl.No.	Author Name	Title of the Book	Publisher	Year and Edition
1.	Alexis Leon	Enterprise Resource Planning - Theory and Practice	Tata McGraw Hill Publishing company Ltd, New Delhi	2 <sup>nd</sup> Edition,2008

## Reference Books

S.No.	Author Name	Title of the Book	Publisher	Year and Edition
1.	Rahul V.Altekar	Enterprise wide Resource Planning Theory and practice	Prentice Hall of India, New Delhi	Edition,2004.
2.	Vinod Kumar Garg & Venkitakrishnan .N.K	Enterprise Resource Planning : Concepts and Practice	Prentice Hall of India, New Delhi	2 <sup>nd</sup> Edition, 2004
3.	Rajesh Ray	Enterprise Resource Planning – Text and cases	Tata McGraw Hill Publishing company Ltd, New Delhi	2011

## Web Resources

- [https://www.caniaserp.com/blog/do-you-need-to-shift-to-an-erp-system-today-find-out-now?gclid=CjwKCAjw96fkBRA2EiwAKZjFTYJtZp4gfa1jwIkpqH2KFawthxaWEsIGVwP9KR1dViyv-pLQYd47BxoCoLIQAvD\\_BwE](https://www.caniaserp.com/blog/do-you-need-to-shift-to-an-erp-system-today-find-out-now?gclid=CjwKCAjw96fkBRA2EiwAKZjFTYJtZp4gfa1jwIkpqH2KFawthxaWEsIGVwP9KR1dViyv-pLQYd47BxoCoLIQAvD_BwE)
- <https://solutiondots.com/blog/erp-cloud/brief-introduction-enterprise-resource-planning-erp/>
- [https://www.tutorialspoint.com/sap/sap\\_introduction.html](https://www.tutorialspoint.com/sap/sap_introduction.html)

## Pedagogy

- Lecture, PPT, Assignment, Seminar

### SEMESTER IV

CODE	COURSE TITLE
18CMUC407	CORPORATE ACCOUNTING - II

Category	CIA	ESE	L	T	P	Credit
Core	25	75	87	3	-	4

#### Preamble

- ❖ To enable the students should have a thorough knowledge on the accounting practice prevailing in the Corporate.

#### Course Outcomes

On the successful completion of the Course, students will be able to

CO Number	CO Statement	Knowledge Level
CO1	Gain practical exposure on Amalgamation, Absorption and Reconstruction.	K1& K2
CO2	Understand how to alter the share capital and internally reconstruct the company.	K2 & K3
CO3	Understand the accounting procedure for liquidation of companies.	K2 & K3
CO4	Understand the corporate practice in valuing shares and goodwill	K2 & K3
CO5	Identify the various Accounting Standards & Procedures relating to the presentation of financial statements.	K3 & K4

#### Mapping with Programme Outcomes

COs	PO1	PO2	PO3	PO4	PO5
CO1	S	S	M	S	S
CO2	S	S	S	S	M
CO3	S	S	M	S	M
CO4	S	S	S	S	M
CO5	S	M	M	M	S

S – Strong, M- Medium

## Syllabus

**UNIT – I** **18 Hrs.**  
Amalgamation and Absorption of companies excluding intercompany Owings and holdings.

**UNIT – II** **18 Hrs.**  
Alteration of share capital and Internal Reconstruction of companies.

**UNIT – III** **18 Hrs.**  
Liquidation of companies – Legal provisions – Statement of Affairs and Deficiency / Surplus Account – Liquidator’s Final Statement of Account.

**UNIT – IV** **18 Hrs.**  
Goodwill – Meaning – Factors influencing goodwill – Need for valuation of goodwill – Methods of valuation of goodwill. Shares – Meaning – Factors influencing value of shares – Need for Valuation of Shares – Methods of valuation of shares

**UNIT – V** **18 Hrs.**  
Accounting Standards – AS 1, AS 2, AS 6, AS 9, AS 10, AS 17, AS 18(Theory only)

**Note: 1. Distribution of marks 20% Theory and 80% Problems**

## Text Books

S.No.	Author	Title of the Book	Publisher	Year and Edition
1	Reddy .T.S & Murthy.A.	Corporate Accounting	Margham Publications, Chennai	2015 and 6th Revised Edition

## Reference Books

S. No.	Author	Title of the Book	Publisher	Year and Edition
1	Gupta.R.L & Radhaswamy. M	Advanced Accountancy	Sultan Chand & Sons Educational Publishers, New Delhi	13 <sup>th</sup> Revised Edition, 2007
2	Jain.S.P & Narang .K.L	Advanced Accountancy	Kalyani Publishers, New Delhi	2014 and Revised 6 <sup>th</sup> Edition (Reprint 2016)
3	Shukla.M.C. & Grewal.T.S	Advanced Accountancy	S.Chand & Company Ltd, New Delhi	17 <sup>th</sup> Edition 2011

## Web Resources

1. <https://slideplayer.com/slide/5270881/>
2. <https://www.slideserve.com/zorion/internal-reconstruction>
3. <https://en.wikipedia.org/wiki/Liquidation>
4. <https://www.taxmann.com/bookstore/bookshop/bookfiles/chapter13companyaccountsandauditingpractices.pdf>
5. [http://www.mca.gov.in/Ministry/notification/notification\\_comp\\_Acct.html](http://www.mca.gov.in/Ministry/notification/notification_comp_Acct.html)

## Pedagogy

- Lecture, Chalk & Talk and Assignment

## SEMESTER-IV

CODE	COURSE TITLE
18CMUC408	OBJECT ORIENTED PROGRAMMING WITH C++

Category	CIA	ESE	L	T	P	Credit
Core	25	75	72	3	-	4

### Preamble

- ❖ Getting in-depth knowledge of object-oriented programming principles and techniques to enhance the programming skills of the students. The students are provided with the knowledge of pointers, exception handling and file operation.

### Course Outcomes

On the successful completion of the course, students will be able to

CO Number	CO Statement	Knowledge Level
CO1	Identify the basic concepts of object oriented programming.	K <sub>4</sub>
CO2	Recognize the abstract idea of function overloading, operator overloading, virtual functions and polymorphism.	K <sub>4</sub>
CO3	Gain knowledge about classes and objects for the real time problems and differentiate Constructors and Destructors.	K <sub>1</sub> & K <sub>2</sub>
CO4	Demonstrate the code reusability, operator overloading and conversions.	K <sub>2</sub>
CO5	Understand about virtual functions and pointers to implement dynamic binding with polymorphism.	K <sub>2</sub>

### Mapping with Programme Outcomes

COs	PO1	PO2	PO3	PO4	PO5
CO1	S	S	M	M	M
CO2	M	S	M	S	S
CO3	M	S	S	S	M
CO4	S	S	M	S	S
CO5	M	M	S	M	L

S- Strong; M-Medium; L-Low

## Syllabus

### UNIT I (12 hrs.)

Principles of Object Oriented Programming – A Look at Procedure and Object Oriented Programming Paradigm – Basic Concepts of Objects Oriented Programming – Benefits of OOP – Object Oriented Languages –Application of OOP – Beginning with C++ – What is C++ – Application of C++-C++ Statements – Structure of C++ Program.

### UNIT II (12 hrs.)

Tokens, Expressions and Control Structures – Tokens – Keywords – Identifiers– Basic and User Defined Data Types – Operators in C++ – Operator Overloading – Operator Precedence – Control Structures. Function in C++ – The Main Function – Function Prototyping – Call by Reference – Return by Reference – Inline – Function Overloading – Friend and Virtual Functions.

### UNIT III (12 hrs.)

Classes and Objects – Introduction – Specifying a Class – Defining a Member Function – Static Data Member – Arrays of Objects – Objects as Function Arguments – Friendly Function – Pointers to Members. Constructors and Destructors – Constructors – Copy Constructors – Dynamic Constructors – Constructing Two –Dimensional Arrays Destructors.

### UNIT IV (12 hrs.)

Operator Overloading – Type Conversions – Introduction – Defining Operator Overloading – Overloading: Unary and Binary Operators – Overloading Binary Operators using Friends – Manipulation of String using Operators – Rules for Overloading Operators – Types Conversions – Inheritance – Extending Classes – Defining Derived classes – Single Multilevel, Multiple, Hierarchical and Hybrid Inheritance – Virtual Base Classes – Abstract Classes.

### UNIT V (12 hrs.)

Pointers and Virtual Functions – Pointers to Objects – Pointers to Derived Classes – Virtual Functions. Working with Files – Classes for File Stream Operations – Opening and Closing of a File – File Pointers and their Manipulation – Sequential I/O Operations.

## Text Books

Sl.No	Author Name	Title of the Book	Publisher	Year and Edition
1.	Balagurusamy.E	Object Oriented Programming with C++	Tata McGraw Hill Publishing Co, Ltd., New Delhi	1 <sup>st</sup> edition, 2013.

## Reference Books

Sl.No	Author Name	Title of the Book	Publisher	Year and Edition
1.	Herbert Schildit	C++ The complete reference	Tata McGraw Hill Publishing Co., Ltd., New Delhi	4 <sup>th</sup> edition, 2008
2.	Dr. Ravichandram	Programming With C++	Tata McGraw Hill Publishing Co., Ltd., New Delhi	2 <sup>nd</sup> edition, 2006
3.	Venugopal. K.R,	Mastering C++,	Tata McGraw Hill	1 <sup>st</sup> edition, 2007

	Rajkumar, Ravishankar. T		Publishing Co, Ltd., New Delhi	
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### Web Resources

1. <https://www.geeksforgeeks.org/basic-concepts-of-object-oriented-programming-using-c/>
2. <https://www.includehelp.com/cpp-tutorial/cpp-tokens-cpp-programming-language-tutorials.aspx>
3. <https://www.programiz.com/cpp-programming/object-class>
4. [https://www.tutorialspoint.com/cplusplus/cpp\\_overloading.htm](https://www.tutorialspoint.com/cplusplus/cpp_overloading.htm)
5. <https://www.w3schools.in/cplusplus-tutorial/virtual-function/>

### Pedagogy

- Lecture, PPT, Quiz, Assignment, Group Discussion, Seminar

## SEMESTER - IV

CODE	COURSE TITLE
18CMUCP03	COMPUTER APPLICATIONS PRACTICAL – III OOPS WITH C++

Category	CIA	ESE	L	T	P	Credit
Core	40	60	-	-	60	3

### Preamble

- ❖ To familiarize the students with object oriented environment and to implement various concepts related to the language.

### Course Outcomes

On the successful completion of the course, students will be able to

CO Number	CO Statement	Knowledge Level
CO1	Understand the basic concepts of OOPS.	K <sub>2</sub>
CO2	Demonstrate the concept of Control Structure, Classes and Objects.	K <sub>2</sub>
CO3	Develop program by using Constructor and Destructor in various applications.	K <sub>3</sub>

### Mapping with Programme Outcomes

COs	PO1	PO2	PO3	PO4	PO5
CO1	S	S	M	M	S
CO2	M	S	S	M	M
CO3	S	S	M	S	L

S- Strong; M-Medium; L-Low



## Syllabus

1. Program to calculate depreciation under Income Tax Act 1961 (using class, defining member functions outside the class).
2. Program to calculate depreciation under Companies Act 2013 (Using class, defining member function inside the class).
3. Program to calculate securities premium on value of shares issued by the company.
4. Program to print the Employees payroll statement (Using control structures).
5. Program to calculate Simple Interest and Compound Interest (Using nested class).
6. Program to calculate net income of a family (Using friend functions in two classes)
7. Program to print the book list of library (Using array of objects).
8. Program to calculate value of good will under Average profit method.
9. Program to calculate the value of shares under intrinsic value method.
10. Program for bank transaction (Using constructor and destructor).
11. Program to calculate Liquidator remuneration on cash realized from assets.
12. Program to Create the Student file and to prepare the mark slip by accessing the file.

## Pedagogy

- Demonstration.

**SEMESTER IV**

<b>CODE</b>	<b>COURSE TITLE</b>
18CMUA404	BUSINESS MANAGEMENT

<b>Category</b>	<b>CIA</b>	<b>ESE</b>	<b>L</b>	<b>T</b>	<b>P</b>	<b>Credit</b>
Allied -IV	25	75	72	3	-	5

**Preamble**

- ❖ To help the students to understand the process of business management and its functions and disseminate the students with current management practices.

**Course Outcomes**

On the successful completion of the Course, students will be able to

<b>CO Number</b>	<b>CO Statement</b>	<b>Knowledge Level</b>
CO1	Acquire the knowledge of management principles and its thoughts.	K1
CO2	Enumerate the concept of planning and decision making in the business situation.	K2
CO3	Identify common organizational structure and describe current trends in organization.	K3
CO4	Apply the various theories of motivation in an organization.	K3&K4
CO5	Evaluate the knowledge of methods and need of Co-ordination and control.	K4

**Mapping with Programme Outcomes**

<b>COs</b>	<b>PO1</b>	<b>PO2</b>	<b>PO3</b>	<b>PO4</b>	<b>PO5</b>
<b>CO1</b>	S	S	S	S	M
<b>CO2</b>	S	S	S	S	S
<b>CO3</b>	S	M	M	S	S
<b>CO4</b>	S	S	M	S	S
<b>CO5</b>	S	M	S	S	M

S – Strong, M- Medium

## Syllabus

### UNIT I

17 Hrs

Nature and scope of Management – Functions of Management – Scientific Management – Contribution by Henry Fayol.

### UNIT II

13 Hrs

Planning - Meaning, Nature and Importance of Planning – Steps in planning – Forecasting – Decision Making: Process – Types of decision.

### UNIT III

18Hrs

Organisation – Meaning, nature and importance – Types of organisation – Span of Control – Delegation and Decentralisation.

### UNIT IV

15 Hrs

Staffing - Recruitment & Selection - Motivation – Meaning – benefits – MBO - Maslows, Herzberg, McGregor theories.

### UNIT V

12 Hrs

Communication – Importance – Types – Barriers - Co-ordination – Principles of Co-ordination – Control – Steps in control – Essentials of effective control.

## Text Books

S.No.	Author	Title of the Book	Publisher	Year and Edition
1	Ramasamy .T	Principles of Management	Himalaya Publishing House, Mumbai.	2008,9th Edition.

## Reference Books

S. No.	Author	Title of the Book	Publisher	Year and Edition
1	Dinakar Pagare	Business Management	Sultan Chand & Company Ltd., New Delhi	1996,5 <sup>th</sup> Edition.
2	R.P & Lakhe.R.R	TQM in service sector	Jaico publishing House, Mumbai	2002,1 <sup>st</sup> Edition.
3	Dr.Prasad L.M.	Principles and Practice of Management	Sultan Chand & Company Ltd., New Delhi	2009,7 <sup>th</sup> Edition.

## Web Resources

- <https://www.managementstudyhq.com/functions-of-management.html>
- <https://www.toppr.com/guides/business-studies/planning/planning-process/>
- <http://www.businessmanagementideas.com/organisation/types/5-main-types-of-organisation/6194>
- [https://saylordotorg.github.io/text\\_organizational-behavior-v1.1/s09-theories-of-motivation.html](https://saylordotorg.github.io/text_organizational-behavior-v1.1/s09-theories-of-motivation.html)

## Pedagogy

- Lecture, Chalk & Talk and Assignment