



V.V.VANNIAPERUMAL COLLEGE FOR WOMEN

(Belonging to Virudhunagar Hindu Nadars)

An Autonomous Institution Affiliated to Madurai Kamaraj University, Madurai

Re-accredited with 'A' Grade (3rd Cycle) by NAAC

VIRUDHUNAGAR - 626 001

OUTCOME BASED EDUCATION WITH CHOICE BASED CREDIT SYSTEM REGULATIONS AND SYLLABUS (with effect from Academic Year 2020 - 2021)

V.V.Vanniaperumal College for Women, Virudhunagar, established in 1962, offers 20 UG Programmes, 14 PG Programmes, 6 M.Phil. Programmes and 6 Ph.D. Programmes. The curricula for all these Programmes, except Ph.D. Programmes, have been framed as per the guidelines given by the University Grants Commission (UGC) & Tamil Nadu State Council for Higher Education (TANSICHE) under Choice Based Credit System (CBCS) and the guidelines for Outcome Based Education (OBE).

The Departments of Commerce, English, History, Mathematics, Biochemistry and Tamil upgraded as Research Centres offer Ph.D. Programmes as per the norms and regulations of Madurai Kamaraj University, Madurai and do not come under the purview of CBCS.

A. CHOICE BASED CREDIT SYSTEM (CBCS)

The CBCS provides an opportunity for the students to choose Courses from the prescribed Courses. The CBCS is followed as per the guidelines formulated by the UGC. The performance of students is evaluated based on the uniform grading system. Computation of the Cumulative Grade Point Average (CGPA) is made to ensure uniformity in evaluation system.

List of Programmes in which CBCS/Elective Course System is implemented

UG PROGRAMMES

Arts & Humanities	:	History (E.M. & T.M.), English, Tamil
Physical & Life Sciences	:	Mathematics, Zoology, Chemistry, Physics, Biochemistry, Home Science - Nutrition and Dietetics, Costume Design and Fashion, Microbiology, Biotechnology, Computer Science, Information Technology, Computer Applications
Commerce & Management	:	Commerce, Commerce with Computer Applications, Commerce with Professional Accounting, Business Administration

PG PROGRAMMES

Arts & Humanities	:	History, English, Tamil
Physical & Life Sciences	:	Mathematics, Physics, Biochemistry, Food Processing & Quality Control, Chemistry, Zoology, Computer Science, Information Technology, Computer Applications (MCA*)
Commerce & Management	:	Commerce, Business Administration (MBA*)

* AICTE approved Programmes

PRE-DOCTORAL PROGRAMMES (M.Phil.)

Arts & Humanities	:	History, English, Tamil
Physical & Life Sciences	:	Mathematics, Biochemistry
Commerce & Management	:	Commerce

OUTLINE OF CHOICE BASED CREDIT SYSTEM - UG

1. Core Courses
2. Discipline Specific Elective Courses (DSEC)
3. Allied Courses
4. Skill Enhancement Courses (SEC)
5. Non Major Elective Courses (NMEC)
6. Ability Enhancement Compulsory Courses (AECC)
7. Generic Elective Courses (GEC)
8. Self Study Courses
9. Extra Credit Courses (Optional)

List of Non Major Elective Courses (NMEC) Offered

UG PROGRAMMES

Name of the Course	Semester	Department
History of India upto A.D.1858	III	History(EM)
இந்திய வரலாறு கி.பி. 1858 வரை	III	History (TM)
Indian National Movement (A.D 1885-1947)	IV	History(EM)
இந்திய தேசிய இயக்கம் (கி.பி. 1885 – 1947)	IV	History(TM)
English for Professions I	III	English
English for Professions II	IV	
இக்கால நீதி இலக்கியம்	III	Tamil
உரைநடை இலக்கியம்	IV	
Basic Hindi – I	III	Hindi
Basic Hindi – II	IV	
Practical Banking	III	Commerce
Basic Accounting Principles	IV	
Business Management	III	Business Administration
Entrepreneurship	IV	
Quantitative Aptitude – I	III	Mathematics
Statistics and Operation Research	IV	
Physics in Everyday life	III	Physics
Fundamentals of Electronics	IV	
Industrial Chemistry	III	Chemistry
Drugs and Natural Products	IV	
Applied Zoology	III	Zoology
Animal Science	IV	
Basic Food Science	III	Home Science – Nutrition and Dietetics
Basic Nutrition and Dietetics	IV	
Women and Health	III	Biochemistry
Lifestyle Associated Disorders	IV	
Medical Lab Technology	III	Microbiology
Applied Microbiology	IV	
Infectious Diseases	III	Biotechnology
Organic Farming	IV	
Basics of Fashion	III	Costume Design And Fashion
Interior Designing	IV	
Introduction to Computers and Office Automation	III	Computer Science
Introduction to Internet and HTML 5	IV	
MS Office	III	Information Technology
Introduction to HTML	IV	
Fundamentals of Computers	III	Computer Applications
Web Design with HTML	IV	
Horticulture – I	III	Botany
Horticulture – II	IV	
மருத்துவ தாவரவியல் - I	III	
மருத்துவ தாவரவியல் - II	IV	
Library and Information Science – I	III	Library Science
Library and Information Science - II	IV	

மேல்நிலை கல்வி வரை தமிழை முதன்மை பாடமாக எடுத்து படிக்காத மாணவிகள் கீழ்க்கண்ட பாடங்களை கட்டாயம் படிக்க வேண்டும்

1. அடிப்படைத் தமிழ் - எழுத்தறிதல்
2. அடிப்படைத் தமிழ் - மொழித்திறனறிதல்

**List of Non Major Elective Courses (NMEC) Offered
(2023-24 onwards)**

UG PROGRAMMES

Name of the Course	Semester	Department
History of India upto A.D.1858	III	History(EM)
இந்திய வரலாறு கி.பி. 1858 வரை	III	History (TM)
Indian National Movement (A.D 1885-1947)	IV	History(EM)
இந்திய தேசிய இயக்கம் (கி.பி. 1885 – 1947)	IV	History(TM)
English for Professions I	III	English
English for Professions II	IV	
இக்கால நீதி இலக்கியம்	III	Tamil
உரை நடை இலக்கியம்	IV	
Basic Hindi – I	III	Hindi
Basic Hindi – II	IV	
Fundamental Hindi - I	III	
Fundamental Hindi - II	IV	
Practical Banking	III	Commerce
Basic Accounting Principles	IV	
Financial Literacy I	III	
Financial Literacy II	IV	
Self-Employment And Start-Up Business	III	Commerce CA
Fundamentals Of Marketing	IV	
Women Protection Laws	III	Commerce(Professional Accounting)
Basic Labour Laws	IV	
Business Management	III	Business Administration
Entrepreneurship	IV	
Quantitative Aptitude I	III	Mathematics
Basic Statistics		
Quantitative Aptitude II		
Operations Research	IV	
Physics in Everyday life –I	III	Physics
Physics in Everyday life –II	IV	
Industrial Chemistry	III	Chemistry
Drugs and Natural Products	IV	
Applied Zoology	III	Zoology
Animal Science	IV	
Basic Food Science	III	Home Science – Nutrition and Dietetics
Basic Nutrition and Dietetics	IV	
Women and Health	III	Biochemistry

Lifestyle Associated Disorders	IV	
Medical Lab Technology	III	Microbiology
Applied Microbiology	IV	
Infectious Diseases	III	Biotechnology
Organic Farming	IV	
Basics of Fashion	III	Costume Design And Fashion
Interior Designing	IV	
Introduction to Computers and Office Automation	III	Computer Science
Introduction to Internet and HTML 5	IV	
MS Office	III	Information Technology
Introduction to HTML	IV	
Fundamentals of Computers	III	Computer Applications
Web Design with HTML	IV	
Horticulture – I	III	Botany
Horticulture – II	IV	
மருத்துவ தாவரவியல் - I	III	
மருத்துவ தாவரவியல் - II	IV	
Library and Information Science – I	III	Library Science
Library and Information Science - II	IV	
Cadet Corps for Career Development I	III	National Cadet Corps
Cadet Corps for Career Development II	IV	

மேல்நிலை கல்வி வரை தமிழை முதன்மை பாடமாக எடுத்து படிக்காத மாணவிகள் கீழ்க்கண்ட பாடங்களை கட்டாயம் படிக்க வேண்டும்

3. அடிப்படைத் தமிழ் - எழுத்தறிதல்
4. அடிப்படைத் தமிழ் - மொழித்திறனறிதல்

List of Ability Enhancement Compulsory Courses & Generic Elective Courses (GEC) Offered

ABILITY ENHANCEMENT COMPULSORY COURSES (AECC)

1. Value Education
2. Environmental Studies

GENERIC ELECTIVE COURSES - 1

1. Human Rights
2. Women Studies

GENERIC ELECTIVE COURSES - 2

1. Constitution of India
2. Modern Economics
3. Adolescent Psychology
4. Disaster Management

B. OUTCOME BASED EDUCATION (OBE) FRAMEWORK

The core philosophy of Outcome Based Education rests in employing a student - centric learning approach to measure the performance of students, based on a set of pre-determined outcomes. The significant advantage of OBE is that it enables a revamp of the curriculum based on the learning outcomes, upgrade of academic resources, quality enhancement in research and integration of technology in the teaching–learning process. It also helps in bringing clarity among students as to what is expected of them after completion of the Programme in general and the Course in particular. The OBE directs the teachers to channelise their teaching methodologies and evaluation strategies to attain the Programme Educational Objectives (PEOs) and fulfill the Vision and Mission of the Institution.

Vision of the Institution

The founding vision of the Institution is to impart Quality Education to the rural womenfolk and to empower them with knowledge and leadership quality.

Mission of the Institution

The mission of the Institution is to impart liberal education committed to quality and excellence. Its quest is to mould learners into globally competent individuals instilling in them life-oriented skills, personal integrity, leadership qualities and service mindedness.

B.1. Programme Educational Objectives, Programme Outcomes and Programme Specific Outcomes

It is imperative for the Institution to set the Programme Educational Objectives (PEOs), Programme Outcomes (POs) and Course Outcomes (COs), consistent with its Vision and Mission statements. The PEOs and the POs should be driven by the Mission of the Institution and should provide distinctive paths to achieve the stated goals. The PEOs for each Programme have to fulfill the Vision and Mission of the Department offering the Programme.

Vision of the Department of Commerce

To impart knowledge of Commerce so that the learners can spread the seeds of Commerce throughout the fields of the society.

Mission of the Department of Commerce

- To provide an environment for understanding and learning Commerce.
- To inculcate an aptitude towards research oriented higher studies.

- To motivate the learners to undertake project works and to apply the findings and suggestions for the betterment of the society.
- To transform commerce graduates into dynamic entrepreneurs and potential job providers.

B.1.1. Programme Educational Objectives (PEOs)

PEOs are broad statements that describe the career and professional achievements, that the Programme is preparing the graduates to achieve within the first few years after graduation. PEOs are framed for each Programme and should be consistent with the Mission of the Institution.

Programme Educational Objectives (PEOs) of B.Com. (Computer Applications)

Programme

The students will be able to

- get employment in banks, IT sectors, Educational Institutions and Leading Companies and also to shine as successful entrepreneurs.
- apply the acquired computation and digital skills in wider areas of commerce and Industry.
- engage in lifelong learning and also serve the society with a focus on ethics and values.

Key Components of Mission Statement	PEO1	PEO2	PEO3
Environment for understanding and continuous learning	-	✓	✓
Choice of Higher studies or employment or self employment	✓	✓	✓
Applications for the betterment of the society	✓	✓	✓

B.1.2. Programme Outcomes (POs)

POs shall be based on Graduates Attribute (GAs) of the Programme. The GAs are the attributes expected of a graduate from a Programme in terms of knowledge, skills, attitude and values. The Graduate Attributes include Disciplinary Knowledge, Communication Skills, Critical Thinking, Problem Solving, Analytical Reasoning, Research Related Skills, Co-operation/Team Work, Scientific Reasoning, Reflective Thinking, Information/Digital Literacy, Multicultural Competence, Moral and Ethical Awareness/Reasoning, Leadership Qualities and Lifelong Learning.

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

1. apply effectively the acquired knowledge and skill in the field of Arts, Physical Science, Life Science, Computer Science, Commerce and Management for higher studies and employment. (*Disciplinary Knowledge*)
2. communicate proficiently and confidently with the ability to express original/complex ideas effectively in different situations. (*Communication Skills*)
3. identify, formulate and solve problems in real life situations scientifically/systematically by adapting updated skills in using modern tools and techniques. (*Scientific Reasoning and Problem Solving*)
4. critically analyse, synthesise and evaluate data, theories and ideas to provide valid suggestions for the betterment of the society. (*Critical Thinking and Analytical Reasoning*)
5. use ICT in a variety of self-directed lifelong learning activities to face career challenges in the changing environment. (*Digital Literacy, Self - Directed and Lifelong Learning*)
6. self-manage and function efficiently as a member or a leader in diverse teams in a multicultural society for nation building. (*Co-operation/Team Work and Multicultural Competence*)
7. uphold the imbibed ethical and moral values in personal, professional and social life for sustainable environment. (*Moral and Ethical Awareness*)

B.1.3. Programme Specific Outcomes (PSO)

Based on the Programme Outcomes, Programme Specific Outcomes are framed for each UG Programme. Programme Specific Outcomes denote what the students would be able to do at the time of graduation. They are Programme-specific and it is mandatory that each PO should be mapped to the respective PSO.

On completion of the B.Com. (C.A) Programme the students will be able to

PO1 - *Disciplinary Knowledge*

PSO 1.a : apply the acquired knowledge of the principles of Accounting, Banking, Law, Marketing and Computer Applications in PG Programmes.

PSO 1.b : apply Computer Application skill with Commerce knowledge to cater to the manpower needs of enterprises and institutions.

PO2 - *Communication Skills*

PSO 2.a : draft mails, prepare reports and communicate effectively in oral and written form to employers, officials and others in the institution / organisation.

PSO 2.b : communicate proficiently the complex contents of Commerce and Computer Application procedures in a concise manner to the recipients including learners, peer teams and academicians.

PO3 - *Scientific Reasoning and Problem Solving*

PSO 3 : identify the commerce oriented problems in real-life situations and solve them systematically/scientifically by following business software to face career challenges.

PO4 - *Critical thinking and Analytical Reasoning*

PSO 4.a : critically evaluate commerce related theories, policies and procedures to provide valid conclusions for the betterment of the society.

PSO 4.b : analyse commerce oriented statements/information with appropriate formulae, tools and programmes, interpret the findings and provide need based suggestions.

PO5 - *Digital Literacy, Self - directed and Lifelong learning*

PSO 5 : use ICT to adapt to digitalized environment in all fields of Commerce and other fields of their interest and develop software by means of self-directed and lifelong learning for professional growth, environment sustainability and nation building.

PO6 - *Cooperation/Team Work and Multicultural Competence*

PSO 6 : emerge with Commerce knowledge, Computer Application skills, leadership potentialities, multi cultural competence and team spirit that help them in team work for achieving common goals for the welfare of the institution, business or society.

PO7 - *Moral and Ethical awareness*

PSO 7: uphold the imbibed legal and moral values in their personal and professional life to function ethically as socially responsible citizen.

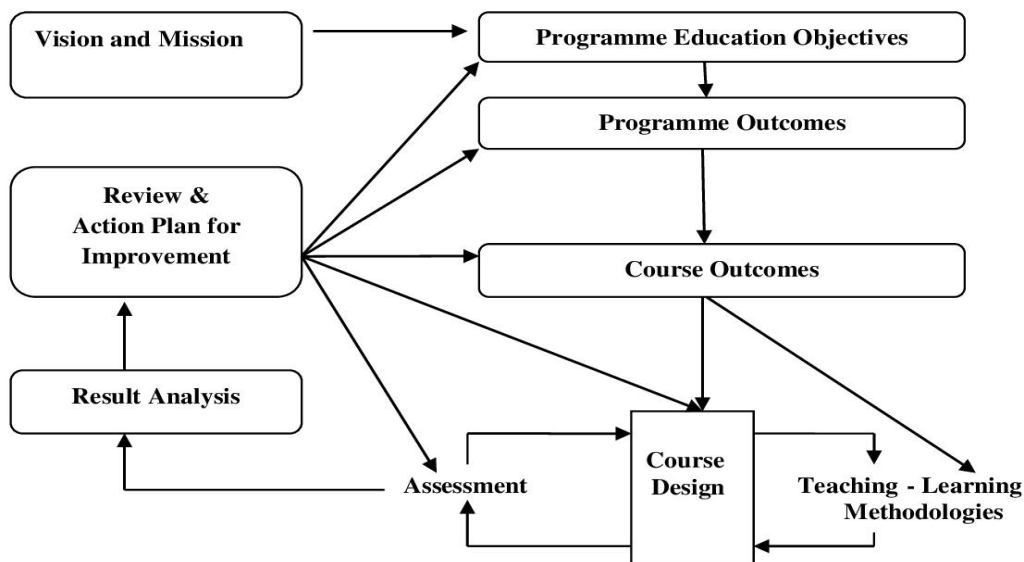
PO-PEO Mapping Matrix

Attainment of PEOs can be measured by a PO-PEO matrix. PEOs should evolve through constant feedback from alumnae, students, industry, management, *etc.* It is mandatory that each PEO should be mapped to at least one of the POs.

PEOs	PEO1	PEO2	PEO3
POs/ PSOs			
PO1/ PSO1	✓	✓	✓
PO2/ PSO2	✓	✓	-
PO3/ PSO3	✓	✓	-
PO4/ PSO4	✓	-	✓
PO5/ PSO5	✓	✓	✓
PO6/ PSO6	✓	✓	✓
PO7/ PSO7	✓	-	✓

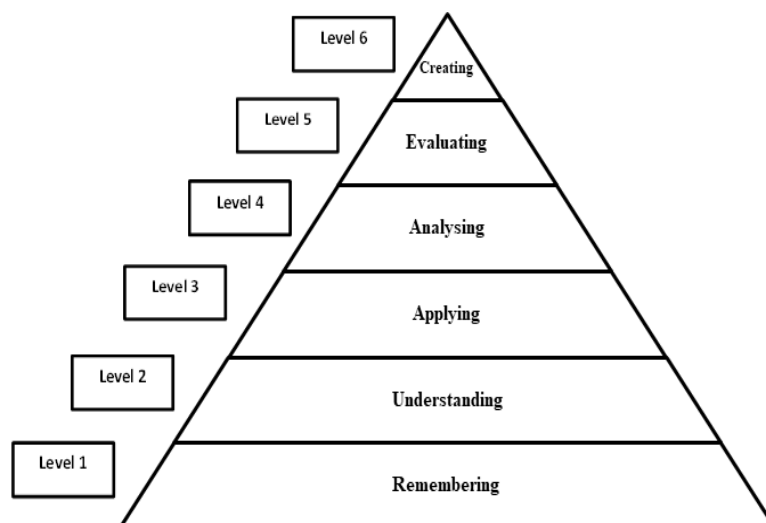
B.1.4. Course Outcomes (COs)

Course Outcomes are narrow statements restricted to the Course contents given in five units. Course Outcomes describe what students would be capable of, after learning the contents of the Course. They reflect the level of knowledge gained, skills acquired and attributes developed by the students after learning of Course contents. COs are measurable, attainable and manageable in number. COs contribute to attain POs in such a way that each CO addresses at least one of the POs and also each PO is reasonably addressed by adequate number of COs.



It is important to determine the methods of assessment. A comprehensive assessment strategy may be outlined using the revised Bloom's Taxonomy levels.

BLOOM'S TAXONOMY



CO – PO Mapping of Courses

After framing the CO statements, the COs framed for each Course is mapped with POs based on the relationship that exists between them. The COs which are not related to any of the POs is indicated with (-), signifying Nil. Measurement Mapping is based on Four Points Scale [High (H), Medium (M), Low (L) and Nil (-)]. For calculating weighted percentage of contribution of each Course in the attainment of the respective POs, the weights assigned for H, M and L are 3, 2 and 1 respectively.

CO-PO/PSO Mapping Table (Course Articulation Matrix)

PO/PSOs	PO1/ PSO1	PO2/ PSO2	PO3/ PSO3	PO4/ PSO4	PO5/ PSO5	PO6/ PSO6	PO7/ PSO7
COs							
CO1							
CO2							
CO3							
CO4							
CO5							

ELIGIBILITY FOR ADMISSION

The candidate should have passed the Higher Secondary Examination conducted by the Board of Higher Secondary Education, Tamilnadu or any other equivalent examination accepted by the Academic Council with Commerce as one of the subjects in Higher Secondary Course.

DURATION OF THE PROGRAMME

The candidates shall undergo the prescribed Programme of study for a period of three academic years (six semesters).

MEDIUM OF INSTRUCTION

English

COURSES OFFERED

Part I	:	Tamil/Hindi/Alternate Course
Part II	:	English
Part III	:	Core Courses
		Discipline Specific Elective Courses
		Allied Courses
		Self Study Course
Part IV	:	Skill Enhancement Courses (SEC)
		Non Major Elective Courses (NMEC)
		Ability Enhancement Compulsory Courses (AECC)
		Generic Elective Courses (GEC)
Part V	:	Self Study Course
		National Service Scheme/ Physical Education/ Youth Red Cross Society/ Red Ribbon Club/ Science Forum/ Eco Club/ Library and Information Science/ Consumer Club / Health and Fitness Club/ National Cadet Corps/ Rotaract Club

B.2 EVALUATION SCHEME**B.2.1.PART II**

Components	Internal Assessment Marks	External Examination Marks	Total Marks
Theory	15	75	100
Practical	5+5	-	

INTERNAL ASSESSMENT**Distribution of Marks**

Mode of Evaluation		Marks
Periodic Test	:	15
Practical	:	10
Total	:	25

Three Periodic Tests - Average of the best two will be considered

B.2.1 PART I& PART III - Core Courses, Discipline Specific Elective Courses & Allied Courses

Components	Internal Assessment Marks	External Examination Marks	Total Marks
Theory	25	75	100
Practical	40	60	100
Project	40	60	100

INTERNAL ASSESSMENT

Distribution of Marks

Theory

Mode of Evaluation			Marks
Periodic Test		:	15
Assignment	Core: I UG-K4 Level, II & III UG- K5 Level	:	5
	Part I & Allied: K4 Level		
	DSEC: K5 Level		
Quiz	K2 Level	:	5
Total		:	25

Three Periodic Tests - Average of the best two will be considered

Two Assignments - Best of the two will be considered

Three Quiz Tests - Best of the three will be considered

Practical

Mode of Evaluation			Marks
Periodic Test		:	30
Record			5
Performance		:	5
Total		:	40

Three Periodic Tests - Average of the best two will be considered

Question Pattern for Periodic Tests

Duration: 2 Hours

Section	Types of Question	No. of Questions	No. of Questions to be answered	Marks for each Question	Total Marks
A Q.No.(1- 4)	Multiple Choice	4	4	1	4
B Q.No.(5- 7)	Internal Choice - Either Or Type	3	3	7	21
C Q.No.(8-9)	Internal Choice - Either Or Type	2	2	10	20
Total					45*

*The total marks obtained in the Periodic Test will be calculated for 15 marks

EXTERNAL EXAMINATION

Question Pattern

Duration: 3 Hours

Section	Types of Question	No. of Questions	No. of Questions to be answered	Marks for each Question	Total Marks
A Q. No.(1- 10)	Multiple Choice	10	10	1	10
B Q. No.(11 -15)	Internal Choice – Either Or Type	5	5	7	35
C Q. No.(16-18)	Internal Choice – Either Or Type	3	3	10	30
				Total	75

B.2.2 PART III - Self Study Course

Core Courses Quiz – Online

Assessment by Internal Examiner only

- Question Bank is prepared by the Faculty Members of the Department for all the Core Courses offered in all the Five Semesters.
- Multiple Choice Question pattern is followed.
- Online Test will be conducted in VI Semester for 100 Marks.
- Model Examination is conducted after two periodic tests.

Distribution of Marks

Mode of Evaluation		Marks
Periodic Test	:	40
Model Examination	:	60
Total	:	100

Two Periodic Tests - Better of the two will be considered

B.2.3 PART IV - Skill Enhancement Courses & Non Major Elective Courses

INTERNAL ASSESSMENT**Distribution of Marks****Theory**

Mode of Evaluation			Marks
Periodic Test		:	25
Assignment	SEC: K4 Level	:	10
	NMEC:K3 Level		
Quiz	K2 Level	:	5
Total		:	40

Three Periodic Tests - Average of the best two will be considered

Two Assignments - Best of the two will be considered

Three Quiz Tests - Best of the three will be considered

Practical

Mode of Evaluation			Marks
Periodic Test		:	30
Record		:	5
Performance		:	5
Total		:	40

Three Periodic Tests - Average of the best two will be considered

Question Pattern for Periodic Test**Duration: 1 Hour**

Section	Types of Question	No. of Questions	No. of Questions to be answered	Marks for each Question	Total Marks
A Q. No.(1- 3)	Internal Choice - Either Or Type	3	3	5	15
B Q. No.(4)	Internal Choice – Either Or Type	1	1	10	10
Total					25

EXTERNAL EXAMINATION

Question Pattern**Duration: 2 Hours**

Section	Types of Question	No. of Questions	No. of Questions to be answered	Marks for each Question	Total Marks
A Q. No.(1- 6)	Internal Choice - Either Or Type	6	6	5	30
B Q. No.(7- 9)	Internal Choice – Either Or Type	3	3	10	30
Total					60

B.2.4 PART IV- Ability Enhancement Compulsory Courses (AECC) & Generic Elective Courses (GEC)

Assessment by Internal Examiner only

- Model Examination is conducted after two periodic tests.
- Book and Study Material prepared by the Faculty of the respective departments will be prescribed.

Distribution of Marks

Mode of Evaluation		Marks
Periodic Test	:	30
Assignment	K2 Level	:
Model Examination	:	60
Total		100

Two Periodic Tests - Best of the two will be considered

Two Assignments - Best of the two will be considered

Question Pattern for Periodic Tests**Duration: 1 Hour**

Section	Types of Question	No. of Questions	No. of Questions to be answered	Marks for each Question	Total Marks
A Q. No.(1- 3)	Internal Choice – Either Or Type	3	3	6	18
B Q. No.(4)	Internal Choice – Either Or Type	1	1	12	12
Total					30

Question Pattern for Model Examination**Duration: 2 Hours**

Section	Types of Question	No. of Questions	No. of Questions to be answered	Marks for each Question	Total Marks
A Q. No.(1-5)	Internal Choice – Either Or Type	5	5	6	30
B Q. No.(6- 8)	Internal Choice – Either Or Type	3	3	10	30
Total					60

B.2.5 PART IV - Self Study Course**Practice for Competitive Examinations - Online**

Assessment by Internal Examiner only

- Question Bank prepared by the Faculty Members of the respective departments will be followed.
- Multiple Choice Question pattern is followed.
- Online Test will be conducted in V Semester for 100 Marks.
- Model Examination is conducted after two periodic tests.

Subject wise Allotment of Marks

Subject		Marks
Tamil	:	10
English	:	10
History	:	10
Mathematics	:	10
Current affairs	:	10
Commerce, Law & Economics	:	10
Physical Sciences	:	10
Life Sciences	:	15
Computer Science	:	5
Food and Nutrition	:	5
Sports and Games	:	5
Total		100

Distribution of Marks

Mode of Evaluation		Marks
Periodic Test	:	40
Model Examination	:	60
Total		100

Two Periodic Tests - Better of the two will be considered

B.2.6 Part V – Extension Activities

Assessment by Internal Examiner only

Distribution of Marks

Mode of Evaluation		Marks
Attendance	:	5
Performance	:	10
Report/Assignment/Project/Camp/Practical	:	10
Total	:	25*

*The marks obtained will be calculated for 100 marks

B.2.7 Extra Credit Course

- Two credits are allotted for the Extra Credit Course offered by the Department.
- Assessment by Internal Examiner Only

Mode of Evaluation		Marks
Project Work and Report	:	60
Presentation and Viva -voce	:	40
Total	:	100

ELIGIBILITY FOR THE DEGREE

- The candidate will not be eligible for the Degree without completing the prescribed Courses of study, lab work, *etc.*, and a minimum Pass marks in all the Courses.
 - No Pass minimum for Internal Assessment.
 - Pass minimum for External Examination is 27 marks out of 75 marks for Core Courses, Discipline Specific Elective Courses and Allied Courses.
 - Pass minimum for External Examination is 21 marks out of 60 marks for Skill Enhancement Courses and Non Major Elective Courses.
 - The aggregate minimum pass percentage is 40.
 - Pass minimum for External Practical Examination is 21 marks out of 60 marks.
 - Pass minimum for Ability Enhancement Compulsory Courses and Generic Elective Courses is 40 marks.
 - Pass minimum for Self Study Courses is 40 marks.
- Attendance
 - For UG, PG and M.Phil. Programmes,
 - a) The students who have attended the classes for 76 days (85%) and above are permitted to appear for the Summative Examinations without any condition.

- b) The students who have only 60-75 days (66% - 84%) of attendance are permitted to appear for the Summative Examinations after paying the required fine amount and fulfilling other conditions according to the respective cases.
 - c) The students who have attended the classes for 59 days and less – upto 45 days (50% - 65%) can appear for the Summative Examinations only after getting special permission from the Principal.
 - d) The students who have attended the classes for 44 days or less (50%) cannot appear for the Summative Examinations and have to repeat the whole semester.
- For Part V in UG Programmes, the students require 75 % of attendance to get a credit.
 - For Certificate, Diploma, Advanced Diploma and Post Graduate Diploma Programmes, the students require 75% of attendance to appear for the Theory/Practical Examinations.

These rules come into effect from 2020-2021 onwards.

B.3 ASSESSMENT MANAGEMENT PLAN

An Assessment Management Plan that details the assessment strategy both at the Programme and the Course levels is prepared. The continuous assessment is implemented using an assessment rubric to interpret and grade students.

B.3.1 Assessment Process for CO Attainment

Assessment is one or more processes carried out by the institution that identify, collect and prepare data to evaluate the achievement of Course Outcomes and Programme Outcomes. Course Outcome is evaluated based on the performance of students in the Continuous Internal Assessments and in End Semester Examination of a Course. Target levels of attainment shall be fixed by the Course teacher and Heads of the respective departments.

Direct Assessment (Rubric based) - Conventional assessment tools such as Term Test, Assignment, Quiz and End Semester Summative Examination are used.

Indirect Assessment – Done through Course Exit Survey.

CO Assessment Rubrics

For the evaluation and assessment of COs and POs, rubrics are used. Internal assessment contributes 40% and End Semester assessment contributes 60% to the total attainment of a CO for the theory Courses. For the practical Courses, internal assessment contributes 50% and Semester assessment contributes 50% to the total attainment of a CO. Once the Course Outcome is measured, the PO can be measured using a CO-PO matrix.

CO Attainment

Direct CO Attainment

Course Outcomes of all Courses are assessed and the CO – wise marks obtained by all the students are recorded for all the assessment tools. The respective CO attainment level is evaluated based on set attainment rubrics.

Attainment Levels of COs

Assessment Methods	Attainment Levels	
Internal Assessment	Level 1	50% of students scoring more than average marks or set target marks in Internal Assessment tools
	Level 2	55% of students scoring more than average marks or set target marks in Internal Assessment tools
	Level 3	60% of students scoring more than average marks or set target marks in internal Assessment tools
End Semester Summative Examination	Level 1	50% of students scoring more than average marks or set target marks in End Semester Summative Examination
	Level 2	55% of students scoring more than average marks or set target marks in End Semester Summative Examination
	Level 3	60% of students scoring more than average marks or set target marks in End Semester Summative Examination

Target Setting for Assessment Method

For setting up the target of internal assessment tools, 55% of the maximum mark is fixed as target. For setting up the target of End Semester Examination, the average mark of the class shall be set as target.

Formula for Attainment for each CO

Attainment = Percentage of students who have scored more than the target marks

$$\text{Percentage of Attainment} = \frac{\text{Number of Students who Scored more than the Target}}{\text{Total Number of Students}} \times 100$$

Indirect CO Attainment

At the end of each Course, an exit survey is conducted to collect the opinion of the students on attainment of Course Outcomes. A questionnaire is designed to reflect the views of the students about the attainment of Course Outcomes.

Overall CO Attainment= 75% of Direct CO Attainment + 25 % of Indirect CO Attainment

In each course, the level of attainment of each CO is compared with the predefined targets. If the target is not reached, the Course teacher takes necessary steps for the improvement to reach the target.

For continuous improvement, if the target is reached, the Course teacher can set the target as a value greater than the CO attainment of the previous year.

B.3.2 Assessment Process for Overall PO Attainment

With the help of CO against PO mapping, the PO attainment is calculated. PO assessment is done by giving 75% weightage to direct assessment and 25% weightage to indirect assessment. Direct assessment is based on CO attainment, where 75% weightage is given to attainment through End Semester examination and 25% weightage is given to attainment through internal assessments. Indirect assessment is done through Graduate Exit Survey and participation of students in Co-curricular/Extra curricular activities.

PO Assessment Tools

Mode of Assessment	Assessment Tool	Description
Direct Attainment (Weightage -75%)	CO Assessment	This is computed from the calculated CO Attainment value for each Course
Indirect Attainment (Weightage - 25%)	Graduate Exit Survey 10%	At the end of the Programme, Graduate Exit Survey is collected from the graduates and it gives the opinion of the graduates on attainment
	Co-curricular/ Extra curricular activities 15%	For participation in Co-curricular/Extra curricular activities during the period of their study.

Programme Articulation Matrix (PAM)

Course Code	Course Title	PO1	PO2	PO3	PO4	PO5	PO6	PO7
Average Direct PO Attainment								
Direct PO Attainment in percentage								

Indirect Attainment of POs for all Courses

POs	PO1	PO2	PO3	PO4	PO5	PO6	PO7
Graduate Exit Survey							
Indirect PO Attainment							

Attainments of POs for all Courses

POs	PO1	PO2	PO3	PO4	PO5	PO6	PO7
Direct Attainment (Weightage - 75%)							
Indirect Attainment (Weightage - 25%)							
Overall PO Attainment							

**Overall PO Attainment= [75% of Direct PO Attainment +
25% of Indirect PO Attainment (Graduate Exit Survey
& Participation in Co- curricular and
Extra curricular Activities)]**

Expected Level of Attainment for each of the Programme Outcomes

POs	Level of Attainment
Value \geq 70%	Excellent
Value \geq 60 % and Value $<$ 70%	Very Good
Value \geq 50 % and Value $<$ 60%	Good
Value \geq 40% and Value $<$ 50%	Satisfactory
Value $<$ 40%	Not Satisfactory

Level of PO Attainment

Graduation Batch	Overall PO Attainment (in percentage)	Whether Expected Level of PO is Achieved? (Yes/No)

B.3.3 Assessment Process for PEOs

The curriculum is designed so that all the Courses contribute to the achievement of PEOs. The attainment of PEOs is measured after 5 years of completion of the Programme only through Indirect methods.

Target for PEO Attainment

Assessment Criteria	Target (UG)	Target (PG)
Record of Employment	25% of the class strength	30% of the class strength
Progression to Higher Education	40% of the class strength	5% of the class strength
Record of Entrepreneurship	2% of the class strength	5% of the class strength

Attainment of PEOs

Assessment Criteria & Tool	Weightage
Record of Employment	10
Progression to Higher Education	20
Record of Entrepreneurship	10
Feedback from Alumnae	30
Feedback from Parents	10
Feedback from Employers	20
Total Attainment	100

$$\text{Percentage of PEO Attainment from Employment} = \frac{\text{Number of Students who have got Employment}}{\text{Target}} \times 100$$

$$\text{Percentage of PEO Attainment from Higher Education} = \frac{\text{Number of Students who pursue Higher Education}}{\text{Target}} \times 100$$

$$\text{Percentage of PEO Attainment from Entrepreneurship} = \frac{\text{Number of Students who have become Entrepreneurs}}{\text{Target}} \times 100$$

Expected Level of Attainment for each of the Programme Educational Objectives

POs	Level of Attainment
Value \geq 70%	Excellent
Value \geq 60 % and Value $<$ 70%	Very Good
Value \geq 50 % and Value $<$ 60%	Good
Value \geq 40% and Value $<$ 50%	Satisfactory
Value $<$ 40%	Not Satisfactory

Level of PEO Attainment

Graduation Batch	Overall PEO Attainment (in percentage)	Whether Expected Level of PEO is Achieved? (Yes/No)

C. PROCESS OF REDEFINING THE PROGRAMME EDUCATIONAL OBJECTIVES

The college has always been involving the key stake holders in collecting information and suggestions with regard to curriculum development and curriculum revision. Based on the information collected, the objectives of the Programme are defined, refined and are inscribed in the form of PEOs. The level of attainment of PEOs defined earlier will be analysed and will identify the need for redefining PEOs. Based on identified changes in terms of curriculum, regulations and PEOs, the administrative system like Board of Studies, Academic Council and Governing Body may recommend appropriate actions. As per the Outcome Based Education Framework implemented from the Academic Year 2020 -2021, the following are the Programme Structure, the Programme Contents and the Course Contents of B.Com.(Computer Applications) Programme.



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BACHELOR OF COMMERCE (4027/4028)

[B.Com. & B.Com.(CA)]

Outcome Based Education with Choice Based Credit System

Programme Structure - Allotment of Hours and Credits

For those who join in the Academic Year 2020-2021

Components	Semester						Total Number of Hours (Credits)
	I	II	III	IV	V	VI	
Part I : Tamil /Hindi/ Alternate Course	5(3)	5(3)	-	-	-	-	10(6)
Part II : English	6(3)	6(3)	-	-	-	-	12(6)
Part III : Core Courses, Discipline Specific Elective Courses , Allied Courses & Self Study Course							
Core Course	5(5)	5(5)	5(5)	6(5)	6(5)	6(5)	33(30)
Core Course	-	-	5(5)	5(5)	6(5)	6(5)	22(20)
Core Course	-	-	5(4)	5(5)	6(5)	6(4)	22(18)
DSEC	-	-	-	-	5(3)	5(3)	10(6)
DSEC	-	-	-	-	5(3)	5(3)	10(6)
Allied Course	5(3)	5(3)	5(3)	5(3)	-	-	20(12)
Allied Course	5(3)	5(3)	5(3)	4(3)	-	-	19(12)
Self Study Course	-	-	-	-	-	0(1)	0(1)
Part IV : Skill Enhancement Courses, Non Major Elective Courses, Ability Enhancement Compulsory Courses, Generic Elective Courses & Self Study Course							
SEC	2(2)	2(2)	2(2)	2(2)	-	2(2)	10(10)
SEC	-	2(2)	-	-	-	-	2(2)
Non Major Elective Course	-	-	2(2)	2(2)	-	-	4(4)
AECC - Value Education	2(2)	-	-	-	-	-	2(2)
AECC - Environmental Studies	-	-	-	-	2(1)	-	2(1)
GEC-1	-	-	1(1)	-	-	-	1(1)
GEC -2	-	-	-	1(1)	-	-	1(1)
Self Study Course	-	-	-	-	0(1)	-	0(1)
Part V : Extension Activities	-	-	-	0(1)	-	-	0(1)
Total	30 (21)	30 (21)	30 (25)	30 (27)	30 (23)	30 (23)	180(140)

DSEC: Discipline Specific Elective Course

SEC: Skill Enhancement Course

AECC : Ability Enhancement Compulsory Course

GEC: Generic Elective Course



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PART I-TAMIL

S.No.	Sem.	Code	Title of the Course	Credits	Marks
1.	I	20UCOT11	சந்தையியல் - I	3	100
2.	II	20UCOT21	சந்தையியல்- II	3	100
TOTAL				6	200

PART I –HINDI

S.No.	Sem.	Code	Title of the Course	Credits	Marks
1.	I	20UHDG11/ 22UHDG11	Hindi Paper I Prose – I & II, Ancient Stories - I, General Essays, Functional Hindi – I & Grammar / General Hindi - I	3	100
2.	II	20UHDG21/ 22UHDG21	Hindi Paper II Drama, One Act Play, Letter, Correspondence, Functional Hindi – II & Grammar/ General Hindi - II	3	100
TOTAL				6	200

PART II-ENGLISH

S. No.	Sem.	Code	Title of the Course	Credits	Marks
1.	I	20UENG11A/ 20UENG11B/ 20UENG11C	English – Paper I English for Advanced Learners – I English for Career Guidance – I English for Communicative Competence-I	3	100
2.	II	20UENG21A/ 20UENG21B/ 20UENG21C	English – Paper II English for Advanced Learners – II English for Career Guidance – II English for Communicative Competence – II	3	100
TOTAL				6	200

PART III - CORE, DISCIPLINE SPECIFIC ELECTIVE COURSES

S. No.	Sem.	Code	Title of the Course	Credits	Marks
1	I	20UCOC11	Financial Accounting – I	5	100
2	II	20UCOC21	Financial Accounting - II	5	100
3	III	20UCOC31/ 20UCOC31N	Cost Accounting	5	100
4	III	20UCOC32	Business Statistics	5	100
5	III	20UCOC33/ 20UCOC33N	Business Communication	4	100
6	IV	20UCOC41/ 20UCOC41N	Partnership Accounting	5	100
7	IV	20UCOC42	Business Mathematics	5	100
8	IV	20UCOC43	Banking Theory, Law and Practice	5	100
9	V	20UCOC51/ 20UCOC51N	Corporate Accounting	5	100
10	V	20UCOC52	Income Tax Law and Practice – I	5	100
11	V	20UCOC53	Business Legislations – I	5	100
12	V	20UCCE51/ 20UCCE52/ 20UCCE53	DSEC-1 Web Technology / Vector Graphics / R Programming	3	100
13	V	20UCCE51P/ 20UCCE52P/ 20UCCE53P	DSEC-2 Web Technology – Lab / Vector Graphics – Lab / R Programming – Lab	3	100
14	VI	20UCOC61	Management Accounting	5	100
15	VI	20UCOC62	Income Tax Law And Practice - II	5	100
16	VI	20UCOC63	Business Legislations - II	4	100
17	VI	20UCCE61/ 20UCCE62/ 20UCCE63	DSEC-3 Tally.ERP 9 with GST / PHP & MySQL / VB.Net	3	100
18	VI	20UCCE61PR/ 20UCCE62PR/ 20UCCE63PR	DSEC-4 Project – Tally.ERP 9 with GST/ Project – PHP & MySQL / Project –VB.Net	3	100
19	VI	20UCOQ61	Self Study Course Core Courses Quiz- Online	1	100
Total				81	1900

PART III – ALLIED COURSE

S. No.	Sem.	Code	Title of the Course	Credits	Marks
1	I	20UCCA11	Introduction to PC Software	3	100
2	I	20UCCA11P	Introduction to PC Software – Lab	3	100
3	II	20UCCA21	Business Application Programming	3	100
4	II	20UCCA21P/ 20UCCA21PN	Business Application Programming - Lab	3	100
5	II	20UCCA31/ 20UCCA31N	Programming with Java	3	100
6	II	20UCCA31P/ 20UCCA31PN	Programming with Java – Lab	3	100
7	III	20UCCA41/ 20UCCA41N	Database Management System	3	100
8	III	20UCCA41P/ 20UCCA41PN	Database Management System – Lab	3	100
Total				24	800

PART IV -SKILL ENHANCEMENT COURSES

S. No.	Sem.	Code	Title of the Course	Credits	Marks
1	I	20UCCS11P	Multimedia and Desktop Publishing Lab	2	100
2	II	20UCOS21P/ 22UCCS21P	E-Commerce Practical/ Business Analytics Using Excel	2	100
3	II	20UCCS22	Elements of Company Organisation	2	100
4	III	20UCOS31	Soft Skills Development	2	100
5	IV	20UCOS41	Mathematics for Competitive Examinations	2	100
6	VI	20UCCS61	Entrepreneurial Skill Development	2	100
Total				12	600

PART IV – NON MAJOR ELECTIVE COURSES

S. No.	Sem.	Code	Title of the Course	Credits	Marks
1	III	20UCON31/ 20UCON31/ 22UCCN31	Practical Banking/ Self Employment and Startup Business	2	100
2	IV	20UCON41/ 20UCON41N/ 22UCCN41	Basic Accounting Principles/ Fundamentals of Marketing	2	100
Total				4	200

**PART IV-ABILITY ENHANCEMENT COMPULSORY COURSES,
GENERIC ELECTIVE COURSES AND INTERNSHIP /FIELD PROJECT**

S. No.	Sem.	Code	Title of the Course	Credits	Marks
1	I	20UGVE11	Value Education	2	100
2	III	20UGEH31/ 20UGEW32	1. Human Rights/ 2. Women Studies	1	100
3	IV	20UGEC41/ 20UGEM42/ 20UGEA43/ 20UGED44	1. Constitution of India/ 2. Modern Economics/ 3. Adolescent Psychology/ 4. Disaster Management	1	100
4	V	20UGES51	Environmental Studies	1	100
5	V	20UGCE51	Self Study Course Practice for Competitive Examinations - Online	1	100
Total				6	500

EXTRACREDIT COURSES

S. No.	Sem.	Code	Title of the Course	Credits	Marks
1	I	20UCOO5PR	Project	2	100
Total				2	100

Part V - EXTENSION ACTIVITIES

S. No.	Semester	Title of the Course	Course Code	Credit
1	I, II, III, IV	National Service Scheme	20UVNS1 20UVNS2	1
2		Physical Education	20UVPE1	
3		Youth Red Cross Society	20UVYR1 20UVYR2	
4		Red Ribbon Club	20UVRR1	
5		Science Forum	20UVSF1	
6		Eco Club	20UVEC1	
7		Library and Information Science	20UVLI1	
8		Consumer Club	20UVCC1	
9		Health and Fitness Club	20UVHF1	
10		National Cadet Corps	20UVNC1 20UVNC2	
11		Rotaract Club	20UVRO1	



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BACHELOR OF COMMERCE (COMPUTER APPLICATIONS)

Programme Code – 4028

PROGRAMME CONTENT

SEMESTER I

S.No.	Components	Title of the Course	Course Code	Hours Per Week	Credits	Exam. Hours	Marks			
							Int.	Ext.	Total	
1.	Part I	சந்தையியல் - I	20UCOT11	5	3	3	25	75	100	
2.	Part II	English –I	20UENG11A/ 20UENG11B/ 20UENG11C	6	3	3	25	75	100	
3.	Part III	Core Course -1	Financial Accounting – I	20UCOC11	5	5	3	25	75	100
4.		Allied Course -1	Introduction to PC Software	20UCCA11	5	3	3	25	75	100
5.		Allied Course -2	Introduction to PC Software – Lab	20UCCA11P	5	3	3	40	60	100
6.	Part IV	SEC – 1	Multimedia and Desktop Publishing Lab	20UCCS11P	2	2	2	40	60	100
7.		AECC – 1	Value Education	20UGVE11	2	2	-	100	-	100
Total				30	21				700	

B.Com. (Computer Applications) - SEMESTER II

S.No	Components	Title of the Course	Course Code	Hours Per Week	Credits	Exam. Hours	Marks			
							Int.	Ext.	Total	
1.	Part I	சந்தையியல் - II	20UCOT21	5	3	3	25	75	100	
2.	Part II	English –II	20UENG21A/ 20UENG21B/ 20UENG21C	6	3	3	25	75	100	
3.	Part III	Core Course -2	Financial Accounting – II	20UCOC21	5	5	3	25	75	100
4.		Allied Course -3	Business Application Programming	20UCCA21	5	3	3	25	75	100
5.		Allied Course -4	Business Application Programming - Lab	20UCCA21P	5	3	3	40	60	100
6.	Part IV	SEC-2	E-Commerce Practical	20UCOS21P	2	2	2	40	60	100
7.		SEC-3	Elements of Company Organisation	20UCCS22	2	2	2	40	60	100
Total				30	21				700	

B.Com. (Computer Applications) - SEMESTER III

S.No.	Components	Title of the Course	Course Code	Hours Per Week	Credits	Exam. Hours	Marks			
							Int.	Ext.	Total	
1.	Part III	Core Course -3	Cost Accounting	20UCOC31	5	5	3	25	75	100
2.		Core Course -4	Business Statistics	20UCOC32	5	5	3	25	75	100
3.		Core Course -5	Business Communication	20UCOC33	5	4	3	25	75	100
4.		Allied Course -5	Programming with Java	20UCCA31	5	3	3	25	75	100
5.		Allied Course -6	Programming with Java – Lab	20UCCA31P	5	3	3	40	60	100
6.	Part IV	SEC -4	Soft Skills Development	20UCOS31	2	2	2	40	60	100
7.		NMEC-1	Practical Banking	20UCON31	2	2	2	40	60	100
8.		GEC – 1	1.Human Rights/ 2. Women Studies	20UGEH31/ 20UGEW32	1	1	2	100	-	100
Total				30	25				800	

B.Com. (Computer Applications) - SEMESTER IV

S.No.	Components	Title of the Course	Course Code	Hours Per Week	Credits	Exam. Hours	Marks			
							Int.	Ext.	Total	
1.	Part III	Core Course -6	Partnership Accounting	20UCOC41	6	5	3	25	75	100
2.		Core Course -7	Business Mathematics	20UCOC42	5	5	3	25	75	100
3.		Core Course -8	Banking Theory, Law and Practice	20UCOC43	5	5	3	25	75	100
4.		Allied Course -7	Database Management System	20UCCA41	4	3	3	25	75	100
5.		Allied Course -8	Database Management System – Lab	20UCCA41P	5	3	3	40	60	100
6.	Part IV	SEC -5	Mathematics for Competitive Examinations	20UCOS41	2	2	2	40	60	100
7.		NMEC -2	Basic Accounting Principles	20UCON41	2	2	2	40	60	100
8.		GEC – 2	1. Constitution of India/ 2. Modern Economics/ 3. Adolescent Psychology/ 4. Disaster Management	20UGEC41/ 20UGEM42/ 20UGEA43/ 20UGED44	1	1	2	100	-	100
9.	Part V	Extension Activities			-	1	100			
Total					30	27	900			

B.Com. (Computer Applications) - SEMESTER V

S.No.	Components	Title of the Course	Course Code	Hours Per Week	Credits	Exam. Hours	Marks			
							Int.	Ext.	Total	
1.	Part III	Core Course -9	Corporate Accounting	20UCOC51	6	5	3	25	75	100
2.		Core Course -10	Income Tax Law and Practice – I	20UCOC52	6	5	3	25	75	100
3.		Core Course -11	Business Legislations – I	20UCOC53	6	5	3	25	75	100
4.		DSEC-1	Web Technology / Vector Graphics / R Programming	20UCCE51/ 20UCCE52/ 20UCCE53	5	3	3	25	75	100
5.		DSEC-2	Web Technology – Lab / Vector Graphics – Lab / R Programming – Lab	20UCCE51P/ 20UCCE52P/ 20UCCE53P	5	3	3	40	60	100
6.	Part IV	AECC – 2	Environmental Studies	20UGES51	2	1	2	100		100
7.		Self Study Course	Practice for Competitive Examinations - Online	20UGCE51	-	1	-	100	-	100
Total					30	23				700
	Extra Credit Course	Project	20UCOO5PR	-	2	-			100	

B.Com. (Computer Applications) - SEMESTER VI

S.No.	Components		Title of the Course	Course Code	Hours Per Week	Credits	Exam. Hours	Marks		
								Int.	Ext.	Total
1.	Part III	Core Course -12	Management Accounting	20UCOC61	6	5	3	25	75	100
2.		Core Course -13	Income Tax Law And Practice - II	20UCOC62	6	5	3	25	75	100
3.		Core Course -14	Business Legislations - II	20UCOC63	6	4	3	25	75	100
4.		DSEC-3	Tally.ERP 9 with GST / PHP & MySQL / VB.Net	20UCCE61/ 20UCCE62/ 20UCCE63	5	3	3	25	75	100
5.		DSEC-4	Project – Tally.ERP 9 with GST/ Project – PHP & MySQL / Project –VB.Net	20UCCE61PR / 20UCCE62PR / 20UCCE63PR	5	3	3	40	60	100
6.		Self Study Course	Core Courses Quiz- Online	20UCOQ61	-	1	-	100	-	100
7.	Part IV	SEC-6	Entrepreneurial Skill Development	20UCCS61	2	2	2	40	60	100
Total					30	23				700



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BACHELOR OF COMMERCE (COMPUTER APPLICATIONS)

Programme Code – 4028

REVISED PROGRAMME CONTENT

SEMESTER I

S.No.	Components		Title of the Course	Course Code	Hours Per Week	Credits	Exam. Hours	Marks		
								Int.	Ext.	Total
1.	Part I		சந்தையியல் - I	20UCOT11	5	3	3	25	75	100
2.	Part II		English –I	20UENG11	6	3	3	25	75	100
3.	Part III	Core Course -1	Financial Accounting – I	20UCOC11	5	5	3	25	75	100
4.		Allied Course -1	Introduction to PC Software	20UCCA11	5	3	3	25	75	100
5.		Allied Course -2	Introduction to PC Software – Lab	20UCCA11P	5	3	3	40	60	100
6.	Part IV	SEC – 1	Multimedia and Desktop Publishing Lab	20UCCS11P	2	2	2	40	60	100
7.		AECC – 1	Value Education	20UGVE11	2	2	-	100	-	100
Total					30	21				700

B.Com. (Computer Applications) - SEMESTER II

S.No.	Components		Title of the Course	Course Code	Hours Per Week	Credits	Exam. Hours	Marks		
								Int.	Ext.	Total
1.	Part I		சந்தையியல் - II	20UCOT21	5	3	3	25	75	100
2.	Part II		English –II	20UENG21	6	3	3	25	75	100
3.	Part III	Core Course -2	Financial Accounting – II	20UCOC21	5	5	3	25	75	100
4.		Allied Course -3	Business Application Programming	20UCCA21	5	3	3	25	75	100
5.		Allied Course -4	Business Application Programming - Lab	20UCCA21PN	5	3	3	40	60	100
6.	Part IV	SEC-2	Business Analytics using Excel	22UCCS21P	2	2	2	40	60	100
7.		SEC-3	Elements of Company Organisation	20UCCS22	2	2	2	40	60	100
Total					30	21				700

B.Com. (Computer Applications) - SEMESTER III

S.No.	Components	Title of the Course	Course Code	Hours Per Week	Credits	Exam. Hours	Marks			
							Int.	Ext.	Total	
1.	Part III	Core Course -3	Cost Accounting	20UCOC31N	5	5	3	25	75	100
2.		Core Course -4	Business Statistics	20UCOC32	5	5	3	25	75	100
3.		Core Course -5	Business Communication	20UCOC33N	5	4	3	25	75	100
4.		Allied Course -5	Programming with Java	20UCCA31N	5	3	3	25	75	100
5.		Allied Course -6	Programming with Java – Lab	20UCCA31PN	5	3	3	40	60	100
6.	Part IV	SEC -4	Soft Skills Development	20UCOS31	2	2	2	40	60	100
7.		NMEC-I	Practical Banking / Self Employment and Startup Business	20UCON31N/ 22UCCN31	2	2	2	40	60	100
8.		GEC – 1	1.Human Rights/ 2. Women Studies	20UGEH31/ 20UGEW32	1	1	2	100	-	100
Total					30	25				800

B.Com. (Computer Applications) - SEMESTER IV

S.No.	Components	Title of the Course	Course Code	Hours Per Week	Credits	Exam. Hours	Marks			
							Int.	Ext.	Total	
1.	Part III	Core Course -6	Partnership Accounting	20UCOC41N	6	5	3	25	75	100
2.		Core Course -7	Business Mathematics	20UCOC42	5	5	3	25	75	100
3.		Core Course -8	Banking Theory, Law and Practice	20UCOC43	5	5	3	25	75	100
4.		Allied Course -7	Database Management System	20UCCA41N	4	3	3	25	75	100
5.		Allied Course -8	Database Management System – Lab	20UCCA41PN	5	3	3	40	60	100
6.	Part IV	SEC -5	Mathematics for Competitive Examinations	20UCOS41	2	2	2	40	60	100
7.		NMEC -2	Basic Accounting Principles / Fundamentals of Marketing	20UCON41N /22UCCN41	2	2	2	40	60	100
8.		GEC – 2	1. Constitution of India/ 2. Modern Economics/ 3. Adolescent Psychology/ 4. Disaster Management	20UGEC41/ 20UGEM42/ 20UGEA43/ 20UGED44	1	1	2	100	-	100
9.	Part V	Extension Activities			-	1	-			
Total					30	27	800			

B.Com. (Computer Applications) - SEMESTER V

S.No.	Components	Title of the Course	Course Code	Hours Per Week	Credits	Exam. Hours	Marks			
							Int.	Ext.	Total	
1.	Part III	Core Course -9	Corporate Accounting	20UCOC51N	6	5	3	25	75	100
2.		Core Course -10	Income Tax Law and Practice – I	20UCOC52	6	5	3	25	75	100
3.		Core Course -11	Business Legislations – I	20UCOC53	6	5	3	25	75	100
4.		DSEC-1	Web Technology / Vector Graphics / R Programming	20UCCE51/ 20UCCE52/ 20UCCE53	5	3	3	25	75	100
5.		DSEC-2	Web Technology – Lab / Vector Graphics – Lab / R Programming – Lab	20UCCE51P/ 20UCCE52P/ 20UCCE53P	5	3	3	40	60	100
6.		Self Study Course	Practice for Competitive Examinations - Online	20UGCE51	-	1	-	100	-	100
7.	Part IV	AECC – 2	Environmental Studies	20UGES51	2	1	2	100		100
Total					30	23			700	
	Extra Credit Course	Project	20UCOO5PR	-	2		-			100

B.Com. (Computer Applications) - SEMESTER VI

S.No.	Components	Title of the Course	Course Code	Hours Per Week	Credits	Exam. Hours	Marks			
							Int.	Ext.	Total	
1.	Part III	Core Course -12	Management Accounting	20UCOC61	6	5	3	25	75	100
2.		Core Course -13	Income Tax Law And Practice – II	20UCOC62	6	5	3	25	75	100
3.		Core Course -14	Business Legislations – II	20UCOC63	6	4	3	25	75	100
4.		DSEC-3	Tally.ERP 9 with GST / PHP & My SQL / VB.Net	20UCCE61/ 20UCCE62/ 20UCCE63	5	3	3	25	75	100
5.		DSEC-4	Project – Tally.ERP 9 with GST/ Project – PHP & My SQL / Project –VB.Net	20UCCE61PR/ 20UCCE62PR/ 20UCCE63PR	5	3	3	40	60	100
6.		Self Study Course	Core Courses Quiz- Online	20UCOQ61	-	1	-	100	-	100
7.	Part IV	SEC-6	Entrepreneurial Skill Development	20UCCS61	2	2	2	40	60	100
Total					30	23				700



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VIRUDHUNAGAR - 626 001

இளங்கலை வணிகவியல்(கணினிபயன்பாடு)

(2020-21ம் ஆண்டில் சேரும் மாணவர்களுக்குரியது)

முதல் பருவம்	சந்தையியல் - I	நேரம் / வாரம் : 5	
பகுதி - I		தரமதிப்பு : 3	
பாடக் குறியீட்டு எண் 20UCOT11		அக மதிப்பெண் 25	புற மதிப்பெண் 75

கற்றல் வெளிப்பாடு

இந்த பாடத்திட்டம் முடிந்த பிறகு, மாணவர்கள்

- CO1: சந்தைகளைப் பற்றிய அணுகு முறைகள், கூறுகள் மற்றும் சந்தைப் பணிகளை விவரிப்பர் ;
ஒவ்வொன்றின் நவீன முறைகளை தெரிந்து கொள்வர். [K1]
- CO2: சந்தையின் வகைகள், சந்தையிடுகை பணிகளின் வகைகள் அவற்றிற்கிடையே
வேறுபாடுகள் மற்றும் முக்கியத்துவத்தை புரிந்து கொள்வர். [K2]
- CO3: சந்தையியற் கோட்பாடுகள், சந்தையியற் நடவடிக்கைகள், போக்குவரத்து சாதனங்கள்,
பொருட்களை வகைப்படுத்துதல் மற்றும் நிதி வசதி ஆகியவற்றைப் பற்றி விரிவாக
அறிந்து கொள்வர். [K2]
- CO4: சந்தையிடுகை பணிகளை செயல்படுத்தும் வழி முறைகளின் நிறை குறைகளை
அறிந்து நடைமுறைக்கு ஏற்றவாறு பயன்படுத்துவர். [K3]
- CO5: இந்தியாவில் தர நிர்ணயம், போக்குவரத்து முறைகள் மற்றும் சந்தையியல்
கலவை பற்றி பகுப்பாய்வு செய்வர் கொள்முதல் சிக்கல்களைப் புரிந்து தீர்வு
காண்பர். [K4]

அத்தியாயம் 1

சந்தையின் பொருளும் இலக்கணமும் : சந்தையின் வகைகள் - முக்கியத்துவம் -
நவீனச் சந்தையியலின் சிறப்பம்சங்கள் - சந்தையியலைப் பயிலுவதற்கான அணுகுமுறைகள்
- சந்தையியற் கோட்பாடு - சந்தையியல் கலவை - கூறுகள். (15 மணி நேரம்)

அத்தியாயம் 2

சந்தையிடுகைப் பணிகளும் அவற்றின் வகைகளும் : உரிமை மாற்றுப்பணிகள் -
கொள்முதல் செய்யும் போது கவனிக்க வேண்டியவைகள் - கொள்முதல் பணிகள் -
கொள்முதல் செய்யும் வழிகள் - ஒன்றுதிரட்டுதல் - முக்கியத்துவம் - சிக்கல்கள் - விற்பனை
- பொருள் - முக்கியத்துவம் - கூறுகள் - விற்பனை செய்யும் வழிகள். (15 மணி நேரம்)

அத்தியாயம் 3

போக்குவரத்து : முக்கியத்துவம் - வகைகள் - சாலைப் போக்குவரத்து - இரயில் போக்குவரத்து - நீர்ப் போக்குவரத்து - போக்குவரத்துச் சாதனத்தைத் தேர்ந்தெடுத்தல் - போக்குவரத்துத் துறையில் நவீனக் கண்டுபிடிப்புகள் - சரக்குச் சேமிப்பின் பொருளும் இலக்கணமும் - காரணங்கள் - பண்டகக் காப்பு - பண்டகங்களின் பணிகள் - வகைகள் - நன்மைகள் - குறைபாடுகள் - இந்தியாவில் பண்டகங்கள். (15 மணி நேரம்)

அத்தியாயம் 4

தரப்படுத்துதலும் வகைப்படுத்துதலும் : தரப்படுத்துதல் - தரம் - தரத்தின் அடிப்படைகள் - வகைப்படுத்துதல் - தரப்படுத்துதல் மற்றும் வகைப்படுத்துதலால் விளையும் நன்மைகள் - குறைபாடுகள் - இந்திய தர நிர்ணய நிறுவனம். (15 மணி நேரம்)

அத்தியாயம் 5

நிதிவசதி : நிதியளவை நிர்ணயிக்கும் காரணிகள் - சந்தையிடுகைக்குத் தேவையான மூலதனம் - நிலைத்த மூலதனம் - நடைமுறை மூலதனம் - நடைமுறை மூலதனத்தின் தேவையை நிர்ணயிக்கும் காரணிகள் - நடைமுறை மூலதனத்தின் வகைகள் - நடைமுறை மூலதனம் திரட்டப்படும் வழிகள். (15 மணி நேரம்)

சுயபடிப்பு

1. விற்பனைக்கும் சந்தையியலுக்கும் உள்ள வேறுபாடுகள்.
2. தரப்படுத்துதலுக்கும் வகைப்படுத்துதலுக்கும் உள்ள வேறுபாடுகள்

பாட நூல்

ஆசிரியர்களால் தொகுக்கப்பட்ட பாடநூல்

பார்வை நூல்

கதிரேசன், & ராதா. (1999). அங்காடியியல். சென்னை: பிரசன்னா பப்ளிஷர்ஸ்.

Course Code 20UCOT11	PO1		PO2		PO3	PO4		PO5	PO6	PO7
	PSO 1.a	PSO 1.b	PSO 2. a	PSO 2.b	PSO 3	PSO 4.a	PSO 4.b	PSO 5	PSO 6	PSO 7
CO1	H	M	-	M	L	L	-	-	-	-
CO2	H	M	-	M	-	L	-	-	L	-
CO3	H	M	-	M	-	L	-	-	L	-
CO4	H	M	-	M	M	L	L	-	L	L
CO5	H	M	-	M	M	M	L	-	-	L

Dr. A. Rama
Head of the Department

Dr. K Prabhavathi
Dr. R.Panchavarnam
Dr. P.T.Kanthimathi
Dr. K. Nivedha
Dr. K. Kalavani
Course Designers



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VIRUDHUNAGAR - 626 001

B.Com. (Computer Applications)

(2020 - 21 onwards)

Semester I	FINANCIAL ACCOUNTING - I	Hours/Week: 5	
Core Course		Credits: 5	
Course Code 20UCOC11		Internal 25	External 75

COURSE OUTCOMES

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

- CO1: state the meaning and importance of accounting principles, conventions, concepts and terminologies. [K1]
- CO2: describe the final accounts. [K2]
- CO3: apply the rules for passing journal entries, posting into ledger, prepare accounts. [K3]
- CO4: prepare bank reconciliation statement, trial balance and rectification of errors. [K3]
- CO5: arrive the profit or loss for trading and non-trading concern, and apply the conversion method in single entry system. [K4]

UNIT I

Introduction to Accounting: Definition – Advantages and Limitations of Accounting – Types of Accounts – Accounting Rules – Basic Accounting Concepts and Conventions – Accounting Equation – Journal – Ledger – Trial Balance.

Rectification of Errors: Classification of Errors – Rectification before preparation of Trial Balance – Rectification after preparing Trial Balance but before finalising the Accounts – Suspense Account. (15 Hours)

UNIT II

Final Accounts of Trading Concerns: Meaning and Preparation of Trading Account, Profit & Loss Account and Balance Sheet – Opening and Closing Entries – Adjustments regarding Closing Stock, Prepaid Expenses, Outstanding Expenses, Income Receivable and Income Received in Advance, Bad Debts and Reserve for Doubtful Debts, Depreciation, Interest on Capital and Interest on Drawings. (15 Hours)

UNIT III

Final Accounts of Non-Trading Concerns (Non - Profit Organisations):

Distinction between Receipts and Payments Account and Income and Expenditure Account – Treatment of items peculiar to Non-Trading Concerns - Preparation of Receipts and Payments Account, Income and Expenditure Account – Preparation of Balance Sheet (when Receipts and Payments Account and / or Income and Expenditure Account are / is given). (15 Hours)

UNIT IV

Single Entry System: Meaning – Definition– Characteristics – Methods of Ascertainment of Profit - Net Worth (Statement of Affairs) Method and Conversion Method – Distinction between Balance Sheet and Statement of Affairs – Steps in Ascertaining Profit or Loss under Net Worth Method – Preparation of Debtors Account, Creditors Account, Bills Payable Account and Bills Receivable Account under Conversion Method. (15 Hours)

UNIT V

Depreciation Accounting: Meaning – Necessity for providing Depreciation – Basic Factors affecting the Amount of Depreciation – Methods of providing Depreciation – Problems based on Straight Line Method, Written Down Value Method, Annuity Method and Sinking Fund Method only.

Bank Reconciliation Statement: Causes for Difference between Bank Balances as per Cash Book and Passbook – Preparation of Bank Reconciliation Statement from

- a) Favorable Cash Book Balance b) Favorable Passbook Balance
- c) Overdrawn Cash Book Balance d) Overdrawn Passbook Balance.

(15 Hours)

SELF STUDY FOR ASSIGNMENT

1. Proforma of Trading Account, Profit & Loss Account and Balance Sheet.
2. Distinction between Double Entry System and Single Entry System.

NOTE:

Composition of the Question Paper:

Theory : 40 %
Problems : 60 %

TEXT BOOK

Reddy,T.S. & Murthy., A.(2011). *Financial Accounting*, Chennai: Margham Publications, 6th Revised Edition.

REFERENCE BOOKS

1. Arulanandam, M.A. ,& Raman, K.S. (2015). *Advanced Accountancy*, Mumbai: Himalaya Publishing House, Revised Edition.
2. Gupta, R.L., & Radhasamy, M. (2009). *Advanced Accountancy, Volume-I*, Delhi: Sultan Chand & Sons, 11th Revised Edition.

Course Code 20UCOC11	PO1		PO2		PO3	PO4		PO5	PO6	PO7
	PSO 1.a	PSO 1.b	PSO 2.a	PSO 2.b	PSO 3	PSO 4 .a	PSO 4.b	PSO 5	PSO 6	PSO 7
CO1	H	L	L	M	H	L	L	-	-	-
CO2	H	H	H	H	H	M	H	M	-	-
CO3	H	H	H	H	H	H	H	M	-	M
CO4	H	L	H	H	H	M	H	M	-	-
CO5	H	L	H	H	H	H	H	M	-	-

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Dr. B.Nandhini
Mrs.R.Mahalakshmi
Course Designers



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B.Com. (Computer Applications)

(2020 - 21 onwards)

Semester I	INTRODUCTION TO PC SOFTWARE	Hours/Week: 5	
Allied Course		Credits: 3	
Course Code 20UCCA11		Internal 25	External 75

COURSE OUTCOMES

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

CO1: state the basic concepts of computers and MS Office. [K1]

CO2: describe the fundamentals of computers and the features of MS-Word, MS-Excel and MS-Access. [K2]

CO3: describe the creation of power point presentation and its features. [K2]

CO4: apply the features of computer organization, MS-Word, MS-Excel, MS-PowerPoint and MS-Access. [K3]

CO5: analyze the functions of Computer and uses of Microsoft Office Applications. [K4]

UNIT I

Introduction to Computers: History and Development of Computers – Characteristics of Computer – Limitations of Computers – Types of Computers – Generations of Computers – Computer Organization. (8 Hours)

UNIT II

Word: Special Features of Microsoft Word 2007 – Opening Screen – Home Panel – Insert Panel – Page Layout Panel – Mailings Panel – Review Panel, Reference Panel – Saving, Opening, Closing and Printing a Document – Editing the Document: Auto Correct, Auto Format, Find and Replace – Formatting the Text – Using Office Button. (17 Hours)

UNIT III

Excel: Creating a Worksheet in Excel 2007 – Formula: Copying Formula, Formulas that Make Decisions and Auto Calculate – Creating Charts – Goal Seeking – Creating a Pivot Table Report – Formatting Numbers and Labels – Changing the Size of Rows and Columns –

Adding and Deleting Rows and Columns – Applying Themes – Add or Remove a Worksheet Background – Convert Text to Columns – Protecting Worksheet – Functions in Excel.

(20 Hours)

UNIT IV

Power Point: Creating a New Presentation – Power Point Views – Entering and Moving the Text – Adding Graphics to a Slide – Adding an Animated Cartoon, Movie and Sound to a Slide – Adding Slide Transitions and Text Transitions, Reordering & Duplicating Slides – Making Slide Shows.

(15 Hours)

UNIT V

Access: New Features of MS – Access 2007 – Creating a Database: New Database, Design Template – Creating a Table: Design View, Datasheet View, Data Types, Setting Primary Key, Table Relationships, Managing Data – Creating a Query: Design View, Query Wizard – Creating Forms – Generating Reports.

(15 Hours)

SELF STUDY FOR ASSIGNMENT

1. Applications of Computers.
2. Auditing the Work Book.

TEXT BOOKS

1. Dinesh Maidasani, (2013). *Learning Computer Fundamentals, MS Office and Internet & Web Technology*, New Delhi: Firewall Media, 3rd Edition. (Unit – I to IV)
2. Sanjay Saxena, (2011). *MS Office 2007 in a Nutshell*, New Delhi: Vikas Publishing House Private Limited. (Unit – V)

REFERENCE BOOKS

1. Jerry Joyce Marianne Moon, (2007). *Plain & Simple 2007 Microsoft Office System*, New Delhi: Prentice Hall of India Private Limited.
2. Michael Price, (2010). *Office 2007*, New Delhi: Tata McGraw Hill Education Private Limited.

Course Code 20UCCA11	PO1		PO2		PO3	PO4		PO5	PO6	PO7
	PSO 1.a	PSO 1.b	PSO 2.a	PSO 2.b	PSO 3	PSO 4.a	PSO 4.b	PSO 5	PSO 6	PSO 7
CO1	H	H	H	M	H	–	M	M	–	–
CO2	H	H	H	M	M	–	M	M	–	–
CO3	H	H	M	M	H	–	–	M	–	–
CO4	H	M	M	L	–	–	M	M	–	–
CO5	H	H	H	L	L	–	–	M	–	–

Dr. A. Rama
Head of the Department

Mrs. T. Veiluvanthal
Mrs. P. Sudha
Course Designers



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B.Com. (Computer Applications)

(2020 – 21 onwards)

Semester I	INTRODUCTION TO PC SOFTWARE – LAB	Hours/Week: 5	
Allied Course		Credits: 3	
Course Code 20UCCA11P		Internal 40	External 60

COURSE OUTCOMES

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

- CO1: write the basic steps to create word document, excel worksheet, powerpoint presentation and access database. [K3]
- CO2: highlight the specific procedures for the required lab practical in Ms-Word, Ms-Excel, Ms-Powerpoint and Ms-Access. [K3]
- CO3: enter the data to create the required document, worksheet, presentation and database. [K3]
- CO4: display and explain the output. [K3]
- CO5: justify the answer for viva voce questions. [K4]

LIST OF PRACTICAL

MS Word

1. Newspaper Creation (Using Column, Drop cap, Font, Alignment, Page Number, Header & Footer, Margin, Water mark).
2. Preparation of Bio-data.
3. Preparation of Business Letter using Mail Merge.
4. Creation of Page using Link.
5. Creation of a Document and Insert Picture, Clipart, Shapes, Chart and Smart Art.

MS Excel

6. Preparation of Student Mark Details with Conditional formatting.
7. Preparation of Employee Pay Bill.
8. Creation of Sales Chart and Protecting a Worksheet.
9. Usage of Financial, Logical, Statistical and Mathematical Functions.

10. Preparation of Inventory Stock Maintenance using Filters.
11. Creation a Pivot Table and Calculate Subtotal and Application of Goal Seek.
12. Calculation of Income Tax.
13. Preparation of Invoice in Data Form.

MS Power Point

14. Preparation of a Business Presentation with Animation and Transition Effects.
15. Presentation for Sales Data. (Using Table, Chart and Picture)
16. Creation of Slideshow. (College, Hotel, Hospital)

MS Access

17. Creation of a table “Railway” with the following fields: T.No., T.Name, From, To, S.Date, R.Date, R.Time and add 10 records. Generate a report on Railway Schedule” in the Prescribed Format.
18. Creation of an Inventory Table with the Fields Product, ID, Name, Opening Stock, Closing Stock, Stock and Remarks

Stock	Remarks
>=500	Enough
Else	Order

19. Creation of a Database having the following fields: Reg.No, Name, Qualification, Application Date, Date of Birth, Percentage. Set the Following Validation Rules,
 - Qualification should be BE/ME/MS/MCA
 - Date of Birth should be between 1st January 1980 and 1st January 1982.
 - Percentage should be between 50 & 100
 - a) Create a Query Named Interview list to Select Only the Candidates having Above 70% and Qualification as BE Computer Science or BE Electronics
 - b) Create a Query to Select the Records having Names Starting with the Letter S.
 - c) Create a Query to Select the Records having Names with Letter S or Letter A.
 - d) Create a Query to Select the Records having Applications Date between 20-3-03 to 30-3-03.
 - e) Sort the Table in the Ascending Order of Names.
20. Creation of a Database having the following fields Sl. No., Name, Date of Join, Basic Pay, DA, HRA, CCA, PF, IT, Net pay. DA = 33% of BP, HRA=15%, CCA=7.5%, PF=8.9%, IT=10%. Create a Macro to Calculate Net Pay.

Course Code 20UCCA11P	PO1		PO2		PO3	PO4		PO5	PO6	PO7
	PSO 1.a	PSO 1.b	PSO 2.a	PSO 2.b	PSO 3	PSO 4.a	PSO 4.b	PSO 5	PSO 6	PSO 7
CO1	H	H	H	L	L	–	–	L	–	–
CO2	H	M	M	L	–	–	M	L	–	–
CO3	H	H	H	M	M	–	M	M	–	–
CO4	H	H	H	L	M	–	L	M	M	–
CO5	H	H	M	L	M	–	–	M	M	–

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VIRUDHUNAGAR - 626 001

B.Com. (Computer Applications) (2020 – 21 onwards)

Semester I	MULTIMEDIA AND DESKTOP PUBLISHING – LAB	Hours/Week: 2	
Skill Enhancement Course		Credits: 2	
Course Code 20UCCS11P		Internal 40	External 60

COURSE OUTCOMES

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

- CO1: write the basic steps to design cards and photos using photoshop and pagemaker and for animation in flash. [K3]
- CO2: present the specific steps for the required lab practical in flash, photoshop and Pagemaker. [K3]
- CO3: apply the procedure to design cards, edit photos and make animations. [K3]
- CO4: display and explain the creation. [K3]
- CO5: justify the answer for viva voce questions. [K4]

LIST OF PRACTICAL

Flash

1. Designing a Flash Program for Text Effects
2. Designing Flash Animation using Tweening Techniques
3. Designing Flash Animation using Morphing Techniques
4. Designing Flash Animation using Masking Techniques
5. Designing Flash Animation using Action Script

Photoshop

1. Creating an Image using Photoshop
2. Creating a Mirror Effect for Text and Picture using Photoshop
3. Creating a Rain Effect using Photoshop
4. Colouring an Image using Photoshop
5. Designing an Image using Brush Tool

PageMaker

1. Designing a Visiting Card using PageMaker
2. Designing an Invitation Card using PageMaker
3. Designing a Page of Images using PageMaker

Course Code 20UCCS11P	PO1		PO2		PO3	PO4		PO5	PO6	PO7
	PSO 1.a	PSO 1.b	PSO 2.a	PSO 2.b	PSO 3	PSO 4.a	PSO 4.b	PSO 5	PSO 6	PSO 7
CO1	H	H	L	M	L	–	–	L	–	L
CO2	H	H	L	M	H	–	–	L	–	–
CO3	H	H	L	–	M	–	–	M	–	–
CO4	H	H	–	–	–	–	–	M	M	–
CO5	H	H	M	M	L	–	–	M	M	–

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இளங்கலைவணிகவியல்(கணினிபயன்பாடு)
(2020-21ம் ஆண்டில் சேரும் மாணவர்களுக்குரியது)

இரண்டாம் பருவம்	சந்தையியல் - II	நேரம் /வாரம் : 5	
பகுதி - I		தரமதிப்பு : 3	
பாடக் குறியீட்டு எண் 20UCOT21		அக மதிப்பெண் 25	புறமதிப்பெண் 75

கற்றல் வெளிப்பாடு

இந்த பாடத்திட்டம் முடிந்த பிறகு மாணவர்கள்

CO1: சந்தை பெருக்க மேலாண்மை, விளம்பரம், விளம்பர முகமை, ஆள்சார் விற்பனை, விற்பனைப் பெருக்கம், விற்பனை அமைப்பின் பொருள் மற்றும் இலக்கணத்தை அறிந்து கொள்வர். [K1]

CO2: விளம்பரம், விளம்பர ஊடகங்களின் நன்மை தீமைகள் விற்பாண்மையரின் வகைகள், விற்பனைப் பெருக்க நடவடிக்கைகளின் வகைகள், மின்சந்தையிடுதல் மற்றும் விற்பனை அமைப்பின் தேவையையும் முக்கியத்துவத்தையும் தெரிந்து கொள்வர். [K1]

CO3: விற்பனை ஊக்குவிப்பு, விளம்பர முகமை, விற்பாண்மையரின் கடமைகள், குணநலன்கள், பரப்பீடு, பொதுத் தொடர்பு, நேரடி அஞ்சல் மற்றும் ஊதியம் வழங்கும் முறைகள் பற்றி அறிந்து கொள்வர். [K2]

CO4: விற்பனை ஊக்குவிப்பு கலவை, விளம்பரத்தின் நன்மை தீமைகள், விற்பாண்மையரின் பொறுப்புகள், மின்சந்தையிடுதல் மற்றும் விற்பாண்மையருக்கு அளிக்கப்படும் பயிற்சி முறைகளை புரிந்து நடைமுறையில் பயன்படுத்துவர். [K3]

CO5: விற்பனை ஊக்குவிப்பு கலவையை நிர்ணயிக்கும் காரணிகள், முகமையை நாடுவதற்கான காரணங்கள், கொள்கலன்களில் கட்டும் முறை, விற்பனைப் பெருக்கத்தின் முக்கியத்துவம் மற்றும் விற்பாண்மையரை நியமித்தலில் உள்ள பல்வேறு நிலைகள் குறித்து மதிப்பீடு செய்வர். [K4]

அத்தியாயம் 1

சந்தைப் பெருக்கமேலாண்மை: பொருள் - இலக்கணம் - குறிக்கோள்கள் - உட்கூறுகள் - விளம்பரப்படுத்துதல் - ஆள்சார் விற்பனை - விற்பனை ஊக்குவிப்பு பிற உத்திகள் - விற்பனை ஊக்குவிப்பு கலவையை நிர்ணயிக்கும் காரணிகள்.
(15 மணி நேரம்)

அத்தியாயம் 2

விளம்பரப்படுத்துதல்: பொருள் - வரைவிலக்கணம் - வகைகள் - ஊடகங்கள்- விளம்பரத்தின் நன்மைகள் - தீமைகள் - விளம்பரத்திற்கான நெறிமுறைகள் - விளம்பர

முகமை – பொருள் – முகமையை நாடுவதற்கான காரணங்கள் – முகமைக்கான ஊதியம்.

(15 மணி நேரம்)

அத்தியாயம் 3

ஆள்சார் விற்பனை: பொருள் – வரைவிலக்கணம் – விற்பாண்மை ஒரு தொழில் – முக்கியத்துவம் – விற்பாண்மையரின் கடமைகள் – பொறுப்புகள் – குணநலன்கள் – வகைகள்.

(15 மணி நேரம்)

அத்தியாயம் 4

விற்பனை ஊக்குவிப்பின் பிற உத்திகள்: விற்பனைப் பெருக்கம் – பொருள் – வரைவிலக்கணம் – முக்கியத்துவம் – குறிக்கோள்கள் – வகைகள் – பரப்பீடு – பொதுத் தொடர்பு – நேரடி அஞ்சல் – கொள்கலன்களில் கட்டும் முறை – மின்சந்தையிடுதல் – பொருள் -நன்மைகள் – தீமைகள்.

(15 மணி நேரம்)

அத்தியாயம் 5

விற்பனை அமைப்பு : பொருள் – தேவையும் முக்கியத்துவமும் – விற்பனை மேலாளர் – தகுதிகள் – பணிகள் – விற்பாண்மையரை நியமித்தலில் உள்ள பல்வேறு நிலைகள் – பயிற்சி அளித்தல், நோக்கம், நன்மைகள், வகைகள் – ஊதியத்திட்டம் தயாரித்தல் – குறிக்கோள்கள்-கூறுகள் – ஊதியம் வழங்கும் முறைகள் – விற்பாண்மையரை மேற்பார்வை செய்தல் மற்றும் கட்டுப்பாடு செய்தல் முறைகள்.

(15 மணி நேரம்)

சுயபடிப்பு

1. விளம்பரம் மற்றும் ஆள்சார் விற்பனைக்கும் உள்ள வேறுபாடுகள்.
2. விளம்பரம் மற்றும் விற்பனைப் பெருக்கத்திறமைக்கும் உள்ள வேறுபாடுகள்.

பாட நூல்

ஆசிரியர்களால் தொகுக்கப்பட்ட பாடநூல்.

பார்வை நூல்

கதிரேசன் & ராதா. (1999). அங்காடியியல் சென்னை: பிரசன்னாபப்ளிஷர்ஸ்.

Course Code 20UCOT21	PO1		PO2		PO3	PO4		PO5	PO6	PO7
	PSO 1.a	PSO 1.b	PSO 2.a	PSO 2.b	PSO 3	PSO 4.a	PSO 4.b	PSO 5	PSO 6	PSO 7
CO1	H	M	–	L	L	L	–	–	L	-
CO2	H	H	–	M	M	L	–	M	L	L
CO3	H	M	L	H	L	M	L	–	M	L
CO4	H	M	L	M	L	L	–	M	L	L
CO5	H	M	L	M	L	M	–	–	M	L

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VIRUDHUNAGAR - 626 001

B.Com. (Computer Applications) (2020 – 21 onwards)

Semester II	FINANCIAL ACCOUNTING – II	Hours/Week: 5	
Core Course		Credits: 5	
Course Code 20UCOC21		Internal 25	External 75

COURSE OUTCOMES

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

- CO1: state the features of branch and departmental accounts, consignment, joint venture, hire purchase and instalment purchase system. [K1]
- CO2: describe basic accounting treatment and compare consignment and sales, partnership and joint venture, branch and departmental accounting and hire purchase and instalment purchase system. [K2]
- CO3: apply the accounting principles to find out profit or loss from concerned accounts and ventures. [K3]
- CO4: illustrate goods sent at an invoice price, joint bank transactions, inter branch/ department transfer and the apportionment of indirect expenses among various departments. [K3]
- CO5: calculate the value of abnormal loss, closing stock in consignment and repossessed stock in case of default, present branch and departmental accounts in final accounts format. [K4]

UNIT I

Branch Accounts: Meaning – Objects – Types of Branches – Dependent Branches – Features of Dependent Branches – Accounting in respect of dependent Branches (Excluding Stock and Debtors System and Wholesale Branch System) – Selling goods only for Cash – Branches Selling goods both for Cash and Credit – Goods Invoiced to Branches at Selling Price. (15 Hours)

UNIT II

Departmental Accounting: Meaning – Need and Advantages of Departmental Accounting – Methods and Techniques of Departmental Accounting – Departmental Trading

and Profit & Loss Account – Departmentalization of Expenses – Accounting for Inter-departmental Transfers both at Cost Price and Invoice Price. (10 Hours)

UNIT III

Hire Purchase and Instalment Purchase Systems:

Hire Purchase System: Definition – Features – Accounting Treatment – Calculation of Interest – Calculation of Cash Price – Default and Repossession – Complete and Partial Repossession (Hire Purchase Trading Account – Methods of Computation of Profit – Theory only)

Instalment Purchase System: Accounting Treatment. (20 Hours)

UNIT IV

Consignment: Meaning – Features – Distinction between Consignment and Sale – Proforma Invoice – Account Sales – Overriding Commission – Delcredere Commission – Losses in Consignment – Pricing of goods sent on Consignment – Valuation of Stock – Journal Entries and Ledger Accounts in the Books of Consignor and Consignee.

(15 Hours)

UNIT V

Joint Venture: Meaning – Features – Joint Venture and Partnership – Methods of Recording Joint Venture Transactions: a) When Separate Set of Books are Maintained b) When

Separate Set of Books are not maintained. (Complete Record Method) (15 Hours)

SELF STUDY FOR ASSIGNMENT

1. Distinction between Departments and Branches; Hire Purchase and Instalment Purchase System.
2. Joint Venture Accounting under Partial Record Method.

NOTE:

Composition of the Question Paper:

Theory : 40 %
Problems : 60 %

TEXT BOOK

Reddy, T.S., & Murthy, A. (2011). *Financial Accounting*, Chennai: Margham Publications, 6th Revised Edition.

REFERENCE BOOKS

1. Arulanandam, M.A., & Raman, K.S.(2015). *Advanced Accountancy*, Mumbai: Himalaya Publishing House, Revised Edition.
2. Gupta, R.L., & Radhasamy, M. (2009). *Advanced Accountancy*, Volume-I, Delhi: Sultan Chand & Sons, 11th Revised Edition.

Course Code 20UCOC21	PO1		PO2		PO3	PO4		PO5	PO6	PO7
	PSO 1.a	PSO 1.b	PSO 2.a	PSO 2.b	PSO 3	PSO 4.a	PSO 4.b	PSO 5	PSO 6	PSO 7
CO1	H	H	H	–	–	–	–	–	L	---
CO2	H	H	H	–	–	M	–	–	L	---
CO3	H	H	M	L	M	M	H	M	L	L
CO4	H	H	H	–	H	–	M	L	L	L
CO5	H	H	M	M	H	–	H	L	L	L

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B.Com. (Computer Applications) (2020 – 21 onwards)

Semester II	BUSINESS APPLICATION PROGRAMMING	Hours/Week: 5	
Allied Course		Credits: 3	
Course Code 20UCCA21		Internal 25	External 75

COURSE OUTCOMES

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

CO1: state the basic concepts of C programming language. [K1]

CO2: mention the fundamentals of C programming. [K2]

CO3: work with various programming concepts in C language. [K3]

CO4: examine the application of structure and union. [K4]

CO5: analyse various decision making statements using data types, operators and array. [K4]

UNIT I

Overview of C: History – Importance – Basic Structure – Programming Style – Executing a C Program.

Constants, Variables and Data Types: Character Set – C Tokens – Keywords and Identifiers – Constants – Variables – Data Types – Declaration of Variables, Declaration of Storage Class – Assigning Values to Variables – Defining Symbolic Constants – Declaring a Variable as Constant – Declaring a Variable as Volatile. (13 Hours)

UNIT II

Operators and Expressions: Arithmetic, Relational, Logical, Assignment Operators – Increment and Decrement Operators, Conditional Operators, Bitwise Operators, Special Operators – Arithmetic Expressions – Evaluation of Expressions – Precedence of Arithmetic Operators – Type Conversion in Expressions – Operator Precedence and Associativity.

Managing I/O Operations: Reading and Writing a Character – Formatted Input, Output. (15 Hours)

UNIT III

Decision Making and Branching: Decision Making with if Statement, Simple if Statement – if.....else Statement – nesting of if else Statement – else if Ladder – switch Statement – The?: Operator – go to Statement.

Decision Making and Looping: while Statement – do Statement – for Statement.

(15 Hours)

UNIT IV

Array: One-dimensional Arrays – Declaration of One – Dimensional Arrays – Initialization of One-Dimensional Arrays – Two-Dimensional Arrays – Initializing Two – Dimensional Arrays – Multi-Dimensional Arrays – Dynamic Arrays.

Character Arrays and Strings: Declaring and Initializing String Variables – Reading Strings from Terminal – Writing String to Screen – Arithmetic Operations on Characters – Putting Strings Together – Comparison of Two Strings – String Handling Functions – Table of Strings.

(16 Hours)

UNIT V

User Defined Functions: Need for User-Defined Functions – A Multi Function Program – Elements of User-Defined Function – Definition of Functions – Return Values and their Types – Function Calls – Function Declaration – Category of Functions – Nesting of Functions – Recursion – Passing Arrays to Functions – Passing Strings to Functions.

Structures and Unions: Defining a Structure – Declaring Structure Variables – Accessing Structure Members –Structure Initialization – Copying and Comparing Structure Variables – Operations on Individual Members – Arrays of Structures – Arrays within Structures – Structures and Functions – Unions – Size of Structures – Bit fields.

(16 Hours)

SELF STUDY FOR ASSIGNMENT

1. Structures within Structures.
2. Random Access to Files.

TEXT BOOK

Balagurusamy, E. (2010). *Programming in ANSI C*, New Delhi: Tata MC Graw Hill Publishing Company Limited, 7th Edition. (Chapters 1–10)

REFERENCE BOOKS

1. Mike McGrath, (2003). *C Programming*, New Delhi: Dreamtech Press.
2. Brain W. Kernighan., & Dennis Ritchie, (2007). *C Programming Language*, New Delhi: Prentice Hall of India Private Ltd.
3. Herbert Schildt, (1998). *The Complete Reference*, New Delhi: Tata McGraw Hill Publishing Company Ltd.

Course Code 20UCCA21	PO1		PO2		PO3	PO4		PO5	PO6	PO7
	PSO 1.a	PSO 1.b	PSO 2.a	PSO 2.b	PSO 3	PSO 4.a	PSO 4.b	PSO 5	PSO 6	PSO 7
CO1	H	H	L	M	L	–	–	M	–	–
CO2	H	H	–	M	L	–	–	M	–	–
CO3	H	H	–	–	L	–	–	M	–	–
CO4	H	H	–	–	–	–	–	M	–	–
CO5	H	H	L	–	–	–	–	M	–	L

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VIRUDHUNAGAR - 626 001

B.Com. (Computer Applications) (2020 – 21 onwards)

Semester II	BUSINESS APPLICATION PROGRAMMING – LAB	Hours/Week: 5	
Allied Course		Credits: 3	
Course Code 20UCCA21P		Internal 40	External 60

COURSE OUTCOMES

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

- CO1: write the basic structure of a C program. [K3]
- CO2: describe specific features including data types, operators, control structures, array, string, functions, structures and union. [K3]
- CO3: enter the codings to execute the C program. [K3]
- CO4: run the program and explain the output of the C program. [K3]
- CO5: justify the answer for viva voce questions. [K4]

LIST OF PRACTICAL

1. Simple Interest using C.
2. Compound Interest calculation.
3. Calculation of Economic Order Quantity and Optimal Time between orders.
4. Depreciation under Straight Line method.
5. Prime Number Checking.
6. Sales Commission calculation.
7. Arithmetic Calculations using switch statement.
8. Calculation of Control ratios – Current ratio and Gross Profit ratio.
9. Multiplication Table.
10. Fibonacci series.
11. Sum and Average of N Natural Numbers.
12. Calculate Sum and Mean–Array of Numbers.
13. Find Maximum and Minimum Numbers of Arrays.
14. Transpose of Matrix.

15. Factorial calculation using Recursion.
16. Swapping of Two Numbers using Function.
17. String Comparison using Function.
18. String Palindrome using Function.
19. Employee details using Structure.
20. Display Library details using Structure.

Course Code 20UCCA21P	PO1		PO2		PO3	PO4		PO5	PO6	PO7
	PSO 1.a	PSO 1.b	PSO 2.a	PSO 2.b	PSO 3	PSO 4.a	PSO 4.b	PSO 5	PSO 6	PSO 7
CO1	H	H	L	–	–	–	–	L	–	–
CO2	H	H	–	–	–	–	–	L	–	–
CO3	H	H	–	–	–	–	–	M	–	–
CO4	H	H	–	–	–	–	–	M	M	–
CO5	H	H	L	–	–	–	–	M	M	–

Dr. A. Rama
Head of the Department

Mrs. T. Veiluvanth
Dr.R.Bagavathilakshmi
Course Designers



V.V.VANNIAPERUMAL COLLEGE FOR WOMEN

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VIRUDHUNAGAR - 626 001

B.Com. (Computer Applications)

(2022 – 2023 onwards)

Semester II	BUSINESS APPLICATION PROGRAMMING – LAB	Hours/Week: 5	
Allied Course		Credits: 3	
Course Code 20UCCA21PN		Internal 40	External 60

COURSE OUTCOMES

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

CO1: write the basic structure of a C program. [K3]

CO2: describe specific features including data types, operators, control structures, array, string, functions, structures. [K3]

CO3: enter the coding to execute the C program. [K3]

CO4: run the program and explain the output of the C program. [K3]

CO5: justify the answer for viva voce questions. [K4]

LIST OF PRACTICAL

1. Compound Interest calculation.
2. Calculation of Economic Order Quantity and Optimal Time between orders.
3. Sales Commission calculation.
4. Arithmetic Calculations using switch statement.
5. Calculation of Control ratios – Current ratio and Gross Profit ratio.
6. Multiplication Table.
7. Fibonacci series.
8. Sum and Average of N Natural Numbers.
9. Calculate Sum and Mean–Array of Numbers.
10. Find Maximum and Minimum Numbers of Arrays.
11. Transpose of Matrix.
12. Factorial calculation using Recursion.
13. Swapping of Two Numbers using Function.
14. String Comparison using Function.
15. Employee details using Structure.

Course Code 20UCCA21PN	PO1		PO2		PO3	PO4		PO5	PO6	PO7
	PSO 1.a	PSO 1.b	PSO 2.a	PSO 2.b	PSO 3	PS O	PSO 4.b	PSO 5	PSO 6	PSO 7
CO 1	H	H	L	–	–	–	–	L	–	–
CO 2	H	H	–	–	–	–	–	L	–	–
CO 3	H	H	–	–	–	–	–	M	–	–
CO 4	H	H	–	–	–	–	–	M	M	–
CO 5	H	H	L	–	–	–	–	M	M	–

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VIRUDHUNAGAR - 626 001

B.Com. (Computer Applications)

(2020 – 21 onwards)

Semester II	E-COMMERCE PRACTICAL	Hours/Week: 2	
Skill Enhancement Course		Credits: 2	
Course Code 20UCOS21P		Internal 40	External 60

COURSE OUTCOMES

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

- CO1: apply the knowledge to choose and fill the specific form to be used for money transaction with banks and post office. [K3]
- CO2: apply the procedure to search the internet for income tax rate, bank rates, gold rates, silver rates, share price and exchange rate. [K3]
- CO3: sketch out the features of e-mail, steps to create and send e-mail by following the e-mail etiquettes. [K3]
- CO4: compare various rates and prices, distinguish contents and enclosures of various Forms. [K3]
- CO5: calculate payroll and wage sheet in MS Access and MS Excel to arrive the net wages/ pay from the given data. [K4]

LIST OF PRACTICAL

1. Filling up of various forms used in banks – Account Opening Form, Pay - in - Slip, Withdrawal form, Cheque - Crossing.
2. Application for Demand Draft, ATM cum Debit card, Credit card, Online banking.
3. Filling up of various forms used in post office - Account opening form (Savings bank and Recurring deposit), Pay- in- Slip, Withdrawal form, eMO.
4. Filling up of application forms for PAN card and Passport.
5. Creation of E-mail ID.
6. Sending Mail with and without attachment.
7. Downloading Information - Commerce related topics.
8. Surfing Currency rate, Gold, Silver and Commodities (any two) rate.

9. Tax rate for Individual, HUF, Firm and Company.
10. Surfing the Market Price for the various shares and securities from the available Market indices.
11. RBI Rates - Cash Reserve Ratio, Statutory Liquidity Ratio, Repo Rate, Reverse Repo Rate, Marginal Standing Facility, Call Rate.
12. Preparation of Pay roll by using MS Excel and MS Access.
13. Preparation of Wage sheet by using MS Excel and MS Access.

Course Code 20UCOS21P	PO1		PO2		PO3	PO4		PO5	PO6	PO7
	PSO 1.a	PSO 1.b	PSO 2.a	PSO 2.b	PSO 3	PSO 4.a	PSO 4.b	PSO 5	PSO 6	PSO 7
CO1	L	L	-	L	-	-	-	L	-	-
CO2	M	H	M	L	-	-	-	H	-	L
CO3	H	H	H	M	-	-	-	H	-	M
CO4	L	L	L	L	-	-	-	L	-	L
CO5	M	M	L	L	-	-	-	H	-	M

Dr.A.Rama
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VIRUDHUNAGAR - 626 001

B.Com. (Computer Applications)

(2022 – 2023 onwards)

Semester II	BUSINESS ANALYTICS USING EXCEL	Hours/Week: 2	
Skill Enhancement Course		Credits: 2	
Course Code 22UCCS21P		Internal 40	External 60

COURSE OUTCOMES

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

CO1: write the basic steps to create excel worksheet. [K3]

CO2: highlight the specific procedures for the required lab practical in MS-Excel. [K3]

CO3: enter the data to create the required worksheet, chart and use of various advanced excel functions. [K3]

CO4: display and explain the output. [K3]

CO5: justify the answer for viva voce questions. [K4]

LIST OF PRACTICAL

MS Excel

1. Preparation of Inventory Details using Multiple worksheet.
2. Preparation of Employee Details using VLOOKUP.
3. Preparation of Employee Pay details using HLOOKUP.
4. Preparation of Sales Details using XLOOKUP.
5. Creation of Gantt Chart for Company Project Details.
6. Preparation of Company Details using Index and Match function.
7. Creation of Dashboard for Company Expenses Details.
8. Preparation of Product Details using Advanced Pivot Table.
9. Create a Macro for Employee Details of various departments.
10. Creation of Sparkline for Product Details

Course Code 22UCCS21P	PO1		PO2		PO3	PO4		PO5	PO6	PO7
	PSO 1.a	PSO 1.b	PSO 2.a	PSO 2.b	PSO 3	PSO 4.a	PSO 4.b	PSO 5	PSO 6	PSO 7
CO 1	H	H	H	L	L	–	–	L	–	–
CO 2	H	M	M	L	–	–	M	L	–	–
CO 3	H	H	H	M	M	–	M	M	–	–
CO 4	H	H	H	L	M	–	L	M	M	–
CO 5	H	H	M	L	M	–	–	M	M	–

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B.Com. (Computer Applications)

(2020 –21 onwards)

Semester II	ELEMENTS OF COMPANY ORGANISATION	Hours/Week:2	
Skill Enhancement Course		Credits: 2	
Course Code 20UCCS22		Internal 40	External 60

COURSE OUTCOMES

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

- CO1: state the basic concepts and provisions related to company, its formation, documents, ownership & management and meetings. [K1]
- CO2: interpret the procedure for company formation and conducting of company meetings. [K2]
- CO3: distinguish between private and public company, equity and preference shares, ordinary and special resolution, memorandum and articles. [K2]
- CO4: summarise the essentials of a valid meeting, functions and duties of promoters. [K3]
- CO5: analyse the relationship among company documents and doctrines. [K4]

UNIT I

Introduction: Company – Meaning – Definition – Characteristics – Public Company – Private Company – Differences between Public Company and Private Company.

(5 Hours)

UNIT II

Formation of Company: Company Promotion – Meaning – Promoter – Functions – Duties – Procedure for formation of a Company – Certificate of Incorporation.

(6 Hours)

UNIT III

Documents : Memorandum of Association – Meaning – Purpose – Contents – Doctrine of Ultra Vires – Articles of Association – Meaning – Contents – Prospectus – Objectives – Contents.

(6 Hours)

UNIT IV

Ownership and Management: Share Capital– Classes of Capital: Meaning and Definition of Shares – Types of Shares – Preference Shares and Equity Shares – Shareholders Rights – Liabilities. (6 Hours)

UNIT V

Company Meetings: Essentials of a Valid Meeting – Notice – Quorum – Agenda – Resolution – Minutes. (7 Hours)

SELF STUDY FOR ASSIGNMENT

1. Privileges of Private Companies.
2. Proxy.

TEXT BOOK

Study Material prepared by the Course Teacher.

REFERENCE BOOKS

- 1.Kapoor, N.D. (2015).*Elements of Company Law*, New Delhi: Sultan Chand & Sons, 30th Edition.
- 2.Balachandran,V., & Govindarajan,M. (2016).*A Student Handbook on Company Law and Practice*, Chennai: Vijay Nicole Imprints Private Limited.

Course Code 20UCCS22	PO1		PO2		PO3	PO4		PO5	PO6	PO7
	PSO 1.a	PSO 1.b	PSO 2.a	PSO 2.b	PSO 3	PSO 4.a	PSO 4.b	PSO 5	PSO 6	PSO 7
CO1	M	M	L	–	–	–	–	–	–	L
CO2	M	M	M	–	L	–	–	L	L	L
CO3	M	M	L	–	–	–	–	–	L	–
CO4	M	M	L	–	–	–	–	–	–	L
CO5	M	M	L	–	L	–	–	–	–	L

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VIRUDHUNAGAR - 626 001

B.Com. (Computer Applications) (2020 – 21 onwards)

Semester III	COST ACCOUNTING	Hours/Week: 5	
Core Course		Credits: 5	
Course Code 20UCOC31		Internal 25	External 75

COURSE OUTCOMES

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

CO1: state the basic concepts of cost accounting. [K1]

CO2: explain the elements of cost and methods of costing. [K2]

CO3: calculate cost and profit under various methods of costing by applying cost control techniques. [K3]

CO4: analyse the various methods of costing for better decision making. [K4]

CO5: compare cost accounting and financial accounting, summarise the causes for idle time and suggest the steps to control idle time. [K5]

UNIT I

Cost Accounting: Meaning – Objectives – Advantages – Limitations – Elements of Cost – Preparation of Cost Sheet. (10 Hours)

UNIT II

Material: Purchase of Materials – Purchase Procedure – Storekeeping – EOQ – Different levels of Stock – Reorder level and Reorder quantity @ Tally.ERP 9 – Material Issue Procedure – Pricing of Materials – Actual Price Methods – First In First Out, Last In First Out, Base Stock – Average Price Methods, Simple Average and Weighted Average. (15 Hours)

UNIT III

Labour and Direct Expenses: Direct Labour – Indirect Labour – Control of Labour Cost – Overtime – Control and Causes – Labour Turnover – Causes – Effect – Methods

of Remuneration – Incentive Wage Plans – Taylor, Halsey, Rowan – The Ethics of wages – Safeguards in Payment of Minimum Wages – Direct Expenses – Meaning – Control.

(20 Hours)

UNIT IV

Overhead : Meaning – Classification – Allocation – Apportionment – Re-apportionment – Direct Re-distribution Method, Step Method, Repeated Distribution Method – Trial and Error Method – Simultaneous Equation Method – Absorption – Machine Hour Rate Calculation.

(15 Hours)

UNIT V

Methods of Costing: Process Costing – Preparation of Process Account with Normal Loss, Abnormal Loss and Abnormal Gains - Job Costing and Contract Costing (Simple Problems Only).

(15 Hours)

SELF STUDY FOR ASSIGNMENT

1. Cost Accounting Vs Financial Accounting.
2. Causes and Control of Idle Time.

Note:

Composition of the Question Paper:

Theory : 33 %

Problems : 67 %

TEXT BOOK

Pillai, R.S.N., & Bagavathi,V. (2010). *Cost Accounting*, New Delhi: S.Chand and Company Ltd, 7th Edition, Reprint 2013.

REFERENCE BOOKS

1. Jain, S.P., & Narang, K.L. (2007). *Cost Accounting*, New Delhi: Kalyani Publishers, 8th Edition, Reprint 2010.
2. Iyengar, S.P. (2005). *Cost Accounting*, New Delhi: S.Chand and Company Ltd, 10th Revised Edition, Reprint 2010.

Course Code 20UCOC31	PO1		PO2		PO3	PO4		PO5	PO6	PO7
	PSO 1.a	PSO 1.b	PSO 2. a	PSO 2.b	PSO 3	PSO 4.a	PSO 4.b	PSO 5	PSO 6	PSO 7
CO1	H	M	M	-	L	L	H	L	M	-
CO2	H	M	M	L	L	L	H	L	M	-
CO3	H	M	M	L	L	L	H	L	L	M
CO4	H	M	H	M	L	L	H	-	L	-
CO5	H	M	M	M	L	L	M	-	L	-

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VIRUDHUNAGAR - 626 001

B.Com (Computer Applications)
(2023 - 2024 onwards)

Semester III	COST ACCOUNTING	Hours/Week: 5	
Core Course		Credits: 5	
Course Code 20UCOC31N		Internal 25	External 75

COURSE OUTCOMES

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

CO1: state the basic concepts of cost and financial accounting. [K1]

CO2: explain the elements, functions and methods of costing and financial accounting.
[K2]

CO3: calculate cost and profit under various methods of costing by applying cost control techniques [K3]

CO4: analyse the various methods of costing for better decision making. [K4]

CO5: summarise the techniques for cost control, cost reduction, causes for idle time and suggest the steps to control it [K5]

UNIT I

Cost Accounting: Meaning – Objectives – Functions – Advantages – Limitations.

Financial Accounting: Advantages – Limitations – Cost Accounting Vs Financial Accounting – Elements of Cost – Preparation of Cost Sheet. (10 Hours)

UNIT II

Material: Purchase of Materials – Purchase Procedure – Storekeeping – EOQ – Different levels of Stock – Reorder level and Reorder quantity @ Tally.ERP 9 – Material Issue Procedure – Pricing of Materials – Actual Price Methods – First In First Out, Last In First Out, Base Stock – Average Price Methods, Simple Average and Weighted Average.
(15 Hours)

UNIT III

Labour and Direct Expenses: Direct Labour– Indirect Labour– Control of Labour Cost – Overtime – Control and Causes – Labour Turnover – Causes – Effect – Methods of Remuneration – Incentive Wage Plans – Taylor, Halsey, Rowan – The Ethics of wages – Safeguards in Payment of Minimum Wages – Direct Expenses – Meaning – Control.

(20 Hours)

UNIT IV

Overhead : Meaning – Classification – Allocation – Apportionment – Re-apportionment – Direct Re-distribution Method, Step Method, Repeated Distribution Method – Trial and Error Method – Simultaneous Equation Method – Absorption – Machine Hour Rate Calculation.

(15 Hours)

UNIT V

Methods of Costing: Process Costing – Preparation of Process Account with Normal Loss, Abnormal Loss and Abnormal Gains - Job Costing and Contract Costing (Simple Problems Only).

(15 Hours)

SELF STUDY FOR ASSIGNMENT

1. Techniques of Cost control and cost reduction
2. Causes and Control of Idle Time.

Note:

Composition of the Question Paper:

Theory : 33 %

Problems : 67 %

TEXT BOOK

Pillai, R.S.N., & Bagavathi, V. (2010). *Cost Accounting*, New Delhi: S.Chand and Company Ltd, 7th Edition, Reprint 2013.

REFERENCE BOOKS

1. Jain, S.P., & Narang, K.L. (2007). *Cost Accounting*, New Delhi: Kalyani Publishers, 8th Edition, Reprint 2010.
2. Iyengar, S.P. (2005). *Cost Accounting*, New Delhi: S.Chand and Company Ltd, 10th Revised Edition, Reprint 2010.

Course Code 20UCOC31N	PO1		PO2		PO3	PO4		PO5	PO6	PO7
	PSO 1.a	PSO 1.b	PSO 2.a	PSO 2.b	PSO 3	PSO 4.a	PSO 4.b	PSO 5	PSO 6	PSO 7
CO 1	H	M	M	–	L	L	H	L	M	–
CO 2	H	M	M	L	L	L	H	L	M	–
CO 3	H	M	M	L	L	L	H	L	L	M
CO 4	H	M	H	M	L	L	H	–	L	–
CO 5	H	M	M	M	L	L	M	–	L	–

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B.Com. (Computer Applications)

(2020 – 21 onwards)

Semester III	BUSINESS STATISTICS	Hours/Week: 5	
Core Course		Credits: 5	
Course Code 20UCOC32		Internal 25	External 75

COURSE OUTCOMES

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

- CO1: state the concepts and formulae used in business statistics. [K1]
- CO2: describe the functions, importance, merits and demerits of tools and techniques of statistics. [K2]
- CO3: apply the statistical tools and techniques for the analysis of the data with ethical guidelines and construct the diagram using MS Excel. [K3]
- CO4: analyse the various methods of collection, presentation and analysis of numerical data. [K4]
- CO5: evaluate the statistical data by applying correlation and index numbers. [K5]

UNIT I

Statistics: Meaning – Importance – Functions – Limitations – Primary and Secondary Data- Meaning – Methods of Collecting Primary Data – Sources of Secondary Data – Census Method – Sampling Method – Methods of Sampling – Classification of Data – Rules and Types, Frequency Distribution – Tabulation – Parts, Rules and Types – Diagrammatic Presentation – Rules and Types – Preparation of Diagrams using MS Excel – Ethical Guidelines for Statistical Practices. (15 Hours)

UNIT II

Measures of Central Tendency and Dispersion : Arithmetic Mean – Combined Arithmetic Mean – Weighted Arithmetic Mean – Median – Mode – Dispersion – Range – Quartile Deviation – Mean Deviation – Standard Deviation – Co-efficient of Variation. (18 Hours)

UNIT III

Correlation Analysis: Definition – Correlation and Causation – Methods of Correlation – Karl Pearson’s Correlation – Spearman’s Rank Correlation – Concurrent Deviation. (Individual series only). (12 Hours)

UNIT IV

Regression Analysis: Definition – Uses – Algebraic Method of Regression – Regression lines and Regression Equations.

Index Numbers: Introduction, Meaning, Definition, Characteristics and Types of Index Numbers – Methods of Constructing Index Numbers – Simple Aggregate, Simple Average of Price Relatives – Weighted Aggregate Index Numbers, Laspeyre’s Method, Paasche’s Method, Fisher’s Ideal Method, Time Reversal Test, Factor Reversal Test – Methods of Constructing Consumer Price Index. (15 Hours)

UNIT V

Association of Attributes: Classification – Uses – Positive and Negative Classes – Types of Association – Yule’s Co-efficient of Association.

Analysis of Time Series: Components of Time Series – Methods of Measurement of Trend – Free Hand or Graphic, Semi Average, Moving Average and Methods of Least Square. Introduction about Parametric Tests, Non-Parametric Tests and Statistical Package for Social Sciences (SPSS). (15 Hours)

SELF STUDY FOR ASSIGNMENT

1. Types of Correlation.
2. Problems in the Construction of Index Numbers.

Note:

Composition of the Question Paper:

Theory : 20 %
Problems : 80 %

TEXT BOOK

Pillai, R.S.N., & Bagavathi,V. (2017). *Statistics*, New Delhi: S.Chand & Company Ltd., 8th Edition, Reprint.

REFERENCE BOOKS

1. Gupta, S.C., & Indra Gupta, (2008). *Business Statistics*, Mumbai: Himalaya Publishing House.
2. Gupta S.P.(2006). *Statistical Methods*, New Delhi: Sultan Chand & Sons.

Course Code 20UCOC32	PO1		PO2		PO3	PO4		PO5	PO6	PO7
	PSO 1.a	PSO 1.b	PSO 2.a	PSO 2.b	PSO 3	PSO 4 .a	PSO 4.b	PSO 5	PSO 6	PSO 7
CO1	H	M	L	-	-	L	L	-	-	-
CO2	H	M	L	M	L	M	M	-	-	-
CO3	H	H	L	H	M	M	M	M	-	M
CO4	H	H	M	M	-	H	M	-	-	-
CO5	H	H	M	H	-	M	H	-	-	-

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B.Com.(Computer Applications)

(2020 – 21 onwards)

Semester III	BUSINESS COMMUNICATION	Hours/Week: 5	
Core Course		Credits: 4	
Course Code 20UCOC33		Internal 25	External 75

COURSE OUTCOMES

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

- CO1: describe the basic concepts related to business communication and correspondence. [K1]
- CO2: explain about various forms of communication and different types of business letter. [K2]
- CO3: apply the principles of correspondence and communication effectively in business. [K3]
- CO4: analyse the suitability of forms of communication and different business letters. [K4]
- CO5: develop the skill in writing a letter to the insurance company and summarise the characteristics of different business letters. [K5]

UNIT I

Business Correspondence: Essentials of a good Business Letter – Structure/Layout of a Business Letter – Communication – Definition – Purpose – Importance – Process – Barriers – Remedies to Overcome Communication Barriers – Principles of Effective Communication. (15 Hours)

UNIT II

Forms of Communication: Classification – Verbal – Non-Verbal – Directions of Communication – Formal and Informal Communication – Modern Forms of Communication – Fax, Internet/E-mail, Video Conferencing. (15 Hours)

UNIT III

Business Letters: Enquiries, Quotations and Tender Notices – Placing Orders and their Fulfillment – Complaints (Claims) and Adjustments. (15 Hours)

UNIT IV

Sales Letters and Credit Letters: Circular and Sales Letters – Status Enquiries and Credit Letters – Collection Letters. (15 Hours)

UNIT V

Other Correspondence: Export – Import Correspondence – Correspondence with Banks and Public Authorities (Government Department, Income Tax and Sales Tax Authorities, Provident Fund Authorities and Postal Authorities). (15 Hours)

SELF STUDY FOR ASSIGNMENT

1. Correspondence with Insurance Companies.
2. Characteristics of a Good Business Letter.

TEXT BOOK

Jain,V.K., & Om Prakash Biyani, (2010). *Business Communication*, New Delhi: S.Chand & Company Limited, Reprint.

REFERENCE BOOKS

1. Pillai, R.S.N., & Bagavathi, (2011). *Modern Commercial Correspondence*, New Delhi: S.Chand & Company Ltd., Reprint.
2. Urmila Rai., & Rai, S.M.(2010). *Business Communication*, Mumbai: Himalaya Publishing House Pvt., Ltd., 9th Revised Edition.

Course Code 20UCOC33	PO1		PO2		PO3	PO4		PO5	PO6	PO7
	PSO 1.a	PSO 1.b	PSO 2.a	PSO 2.b	PSO 3	PSO 4.a	PSO 4.b	PSO 5	PSO 6	PSO 7
CO1	M	M	H	H	L	-	-	-	L	-
CO2	H	L	H	M	L	-	-	-	L	-
CO3	H	M	H	H	L	-	-	-	M	M
CO4	H	M	H	M	L	-	-	-	L	-
CO5	H	M	H	M	L	-	-	-	L	-

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Head of the Department

Dr. P.Thenrathi
Dr.J.Premila
Dr.V.Shantha Meena
Course Designers



V.V.VANNIAPERUMAL COLLEGE FOR WOMEN

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An Autonomous Institution Affiliated to Madurai Kamaraj University, Madurai

Re-accredited with 'A' Grade (3rd Cycle) by NAAC

VIRUDHUNAGAR - 626 001

B.Com. (Computer Applications) (2023 – 2024 onwards)

Semester III	BUSINESS COMMUNICATION	Hours/Week: 5	
Core Course		Credits: 4	
Course Code 20UCOC33N		Internal 25	External 75

COURSE OUTCOMES

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

CO1: describe the basic concepts related to business communication, correspondence and reports. [K1]

CO2: explain about various forms of communication and different types of business letter and reports. [K2]

CO3: apply the principles of correspondence and communication effectively in business. [K3]

CO4: analyse the suitability of forms of communication and different business letters and reports. [K4]

CO5: develop the skill in drafting a report and writing a letter to the insurance company. [K5]

UNIT I

Business Correspondence: Essentials of a good Business Letter – Structure/Layout of a Business Letter – Communication – Definition – Purpose – Importance – Process – Barriers – Remedies to Overcome Communication Barriers – Principles of Effective Communication. (15 Hours)

UNIT II

Forms of Communication: Classification – Verbal – Non-Verbal – Directions of Communication – Formal and Informal Communication – Modern Forms of Communication – Fax, Internet/E-mail, Video Conferencing. (15 Hours)

UNIT III

Business Letters: Enquiries, Quotations and Tender Notices – Placing Orders and their Fulfillment – Complaints (Claims) and Adjustments. (15 Hours)

UNIT IV

Sales Letters and Credit Letters: Circular and Sales Letters – Status Enquiries and Credit Letters – Collection Letters. (15 Hours)

UNIT V

Other Correspondence: Export – Import Correspondence – Correspondence with Banks and Public Authorities (Government Department, Income Tax and Sales Tax Authorities, Provident Fund Authorities and Postal Authorities).

Report Writing: Purpose of Reports – Types of Reports – Uses of Reports – Structure and Style of a Business Report. (15 Hours)

SELF STUDY FOR ASSIGNMENT

1. Correspondence with Insurance Companies.
2. Draft a report on any product.

TEXT BOOK

Jain,V.K., & Om Prakash Biyani, (2010). *Business Communication*, New Delhi: S.Chand & Company Limited, Reprint.

REFERENCE BOOKS

1. Pillai, R.S.N., & Bagavathi, (2011). *Modern Commercial Correspondence*, New Delhi: S.Chand & Company Ltd., Reprint.
2. Urmila Rai., & Rai, S.M.(2010). *Business Communication*, Mumbai: Himalaya Publishing House Pvt., Ltd., 9th Revised Edition.

Course Code	PO1		PO2		PO3	PO4		PO5	PO6	PO7
	PSO 1.a	PSO 1.b	PSO 2.a	PSO 2.b	PSO 3	PSO 4.a	PSO 4.b	PSO 5	PSO 6	PSO 7
20UCOC33N										
CO1	M	M	H	H	L	-	-	-	L	-
CO2	H	L	H	M	L	-	M	-	L	-
CO3	H	M	H	H	L	-	-	-	M	M
CO4	H	M	H	M	L	-	-	-	L	-
CO5	H	M	H	M	L	L	M	-	L	-

Dr. P.P.Shanthy
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Mrs.J.Babitha
Course Designer



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VIRUDHUNAGAR - 626 001

B.Com. (Computer Applications)

(2020 – 21 onwards)

Semester III	PROGRAMMING WITH JAVA	Hours/Week: 5	
Allied Course		Credits: 3	
Course Code 20UCCA31		Internal 25	External 75

COURSE OUTCOMES

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

- CO1: state the basic concepts of Object Oriented programming. [K1]
- CO2: describe the structure and the components of Java program. [K2]
- CO3: apply various concepts and components in Java programming. [K3]
- CO4: analyse and distinguish the use of particular control structure, data types and concepts in Java. [K4]
- CO5: evaluate input/output exception and various graphics methods in Java. [K5]

UNIT I

Object Oriented Programming (OOP): Features of Object Oriented Programming – Basic Concepts of OOPS: Objects – Classes – Data Abstraction – Encapsulation – Inheritance – Polymorphism – Dynamic Binding – Message Passing – History of Java – Java Evaluation – Characteristics of Java – Getting and Installing Java – Difference between C and Java – Introduction to Java – Differentiate Application and Applet Program – Creating and Executing Java Program – Java Virtual Machine – Character set – Java Tokens – Keywords – Identifiers – Literals – Operators – Separators. (13 Hours)

UNIT II

Java Program: Structure of a Java Program – Comments in Java Program – Data Types – Variables – Type Casting – Arrays: One Dimensional Array – Two Dimensional Array.

Operators : Arithmetic Operators – Relational Operators – Logical Operators – Assignment Operators – Increment and Decrement Operators – Bitwise Operators –

Conditional Operators – Special Operators – Control Statements – Decision Making Statement – Simple if Statement – if ...else Statement – Nested if Statement – switch statement – Looping Statements – while loop – do while – for loop – jump Statement – break and continue Statement. (15 Hours)

UNIT III

Classes and Objects: Class – Defining Methods–Creating Objects – Accessing Class Members – Constructor – Default Constructor – Parameterized Constructor – Method Overloading.

Inheritance: Inheritance – Deriving a Subclass – Overriding Methods – Using Super Keyword – Difference between Method Overloading and Method Overriding in Java – Abstract Class. (15 Hours)

UNIT IV

Packages and Interfaces: Package – Creating Package – Hierarchy of Package – Multileveled Package – Classpath – Importing Packages – Creating Our Own Package – Advantages of Packages.

Interfaces: Defining an Interface – Extending Interface – Implementing Interface – Difference between Classes and Interfaces – Difference between Abstract Class and Interface.

Exception Handling: Introduction – Error and its Types – Exception Handling Mechanism – Exception Classes – Built in Exceptions – Using Try and Catch Block – Catching Exceptions – Multiple Catch Clauses – Throw Statement – Throws Clause – Finally Clause. (16 Hours)

UNIT V

Multithreading: Multithreading – Advantages of Multithreading – Thread – Life Cycle of a Thread – Creating a Thread – Extending the Class Thread – Implementing Runnable Interface – Synchronization – Inter – thread Communication – Deadlock.

Applets: Applets – Advantages and Disadvantages of Applet – HTML Tags – Life Cycle of an Applet – Applet Tags in HTML – Passing Parameters to Applets. (16 Hours)

SELF STUDY FOR ASSIGNMENT

1. Graphics Programming.
2. Input / Output Exceptions.

TEXT BOOK

Balagurusamy, E. (2019). *Programming with Java*, New Delhi: Tata McGraw Hill Publishing Company Limited, 6th Edition.

REFERENCE BOOK

1. Herbert Schildt. (2017). *Java2: The Complete Reference*, New Delhi: Tata McGraw Hill Publishing Company Limited, 7th Edition.
2. Rizwan Ahmed, P. (2018). *Java Programming*, Chennai: Margham Publications, 3rd Edition, Reprint.

Course Code 20UCCA31	PO1		PO2		PO3	PO4		PO5	PO6	PO7
	PSO 1.a	PSO 1.b	PSO 2.a	PSO 2.b	PSO 3	PSO 4.a	PSO 4.b	PSO 5	PSO 6	PSO 7
CO1	H	H	L	M	L	–	–	M	–	–
CO2	H	H	–	M	L	–	–	M	–	–
CO3	H	H	–	–	L	–	–	M	–	–
CO4	H	H	–	–	–	–	–	M	–	–
CO5	H	H	L	–	–	–	–	M	–	L

Dr. A. Rama
Head of the Department

Mrs.K.Kasthuri
Mrs.E. Synthiya Judith Gnanaselvi
Course Designers



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VIRUDHUNAGAR - 626 001

B.Com. (Computer Applications)

(2023 – 2024 onwards)

Semester III	PROGRAMMING WITH JAVA	Hours/Week: 5	
Allied Course		Credits: 3	
Course Code 20UCCA31N		Internal 25	External 75

COURSE OUTCOMES

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

- CO1: state the basic concepts of Object Oriented programming. [K1]
- CO2: describe the structure and the components of Java program. [K2]
- CO3: apply various concepts and components in Java programming. [K3]
- CO4: analyse and distinguish the use of particular control structure, data types and concepts in Java. [K4]
- CO5: evaluate input/output exception and various graphics methods in Java. [K5]

UNIT I

Object Oriented Programming (OOP): Features of Object Oriented Programming– Basic Concepts of OOPS: Objects – Classes – Data Abstraction – Encapsulation – Inheritance – Polymorphism – Dynamic Binding – Message Passing – History of Java – Java Evaluation – Characteristics of Java – Getting and Installing Java – Difference between C and Java – Introduction to Java – Differentiate Application and Applet Program – Creating and Executing Java Program – Java Virtual Machine – Character set – Java Tokens – Keywords – Identifiers – Literals – Operators – Separators. (13 Hours)

UNIT II

Java Program: Structure of a Java Program – Comments in Java Program – Data Types – Variables – Type Casting – Arrays: One Dimensional Array – Two Dimensional Array.

Operators : Arithmetic Operators – Relational Operators – Logical Operators – Assignment Operators – Increment and Decrement Operators – Bitwise Operators – Conditional Operators – Special Operators – Control Statements – Decision Making Statement – Simple if Statement – if ...else Statement – Nested if Statement – switch statement – Looping Statements – while loop – do while – for loop – jump Statement – break and continue Statement. (15 Hours)

UNIT III

Classes and Objects: Class – Defining Methods–Creating Objects – Accessing Class Members – Constructor – Default Constructor – Parameterized Constructor – Method Overloading.

Inheritance: Inheritance – Deriving a Subclass – Overriding Methods – Using Super Keyword – Difference between Method Overloading and Method Overriding in Java – Abstract Class. (15 Hours)

UNIT IV

Packages and Interfaces: Package – Creating Package – Hierarchy of Package – Multileveled Package – Classpath – Importing Packages – Creating Our Own Package – Advantages of Packages.

Interfaces: Defining an Interface – Extending Interface – Implementing Interface – Difference between Classes and Interfaces – Difference between Abstract Class and Interface.

Exception Handling: Introduction – Error and its Types – Exception Handling Mechanism – Exception Classes – Built in Exceptions – Using Try and Catch Block – Catching Exceptions – Multiple Catch Clauses – Throw Statement – Throws Clause – Finally Clause. (16 Hours)

UNIT V

Applets: Introduction - How Applets Differ from Applications- Preparing to write Applets- Building Applet code - Applet life cycle- Creating an executable Applet- Designing a web page- Applet tag-Adding Applet to HTML files- Running the Applet- More about Applet tag- Passing parameters to Applets- Aligning the Display- More about HTML tags. (16 hours)

SELF STUDY FOR ASSIGNMENT

1. Graphics Programming.
2. Input / Output Exceptions.

TEXT BOOK

1. Rizwan Ahmed, P. (2018). *Java Programming*, Chennai: Margham Publications, 3rd Edition, Reprint.
2. Balagurusamy, E. (2019). *Programming with Java*, New Delhi: Tata McGraw Hill Publishing Company Limited, 6th Edition. (Unit V)

REFERENCE BOOK

Herbert Scheldt. (2017). *Java2: The Complete Reference*, New Delhi: Tata McGraw Hill Publishing Company Limited, 7th Edition.

Course Code 20UCCA31N	PO1		PO2		PO3	PO4		PO5	PO6	PO7
	PSO 1.a	PSO 1.b	PSO 2.a	PSO 2.b	PSO 3	PSO 4.a	PSO 4.b	PSO 5	PSO 6	PSO 7
CO 1	H	H	L	M	L	–	–	M	–	–
CO 2	H	H	–	M	L	–	–	M	–	–
CO 3	H	H	–	–	L	–	–	M	–	–
CO 4	H	H	–	–	–	–	–	M	–	–
CO 5	H	H	L	–	–	–	–	M	–	L

Dr. P.P.Shanthy
Head of the Department

Mrs.T.Veiluvanthal
Dr.P.Sudha
Course Designers



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B.Com. (Computer Applications)

(2020 – 21 onwards)

Semester III	PROGRAMMING WITH JAVA – LAB	Hours/Week: 5	
Allied Course		Credits: 3	
Course Code 20UCCA31P		Internal 40	External 60

COURSE OUTCOMES

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

CO1: write the basic structure of a Java program. [K3]

CO2: describe specific features including data types, operators, control structures, array, inheritance, interface, package, thread and applet. [K3]

CO3: enter the codings to execute the program. [K3]

CO4: run the program and explain the output of the Java program. [K3]

CO5: justify the answer for viva voce questions. [K4]

LIST OF PRACTICAL

1. Program for Swapping two Numbers.
2. Program for Perfect Number.
3. Program for Vowel Count.
4. Program for Volume calculation using Overloading.
5. Program using Command Line arguments.
6. Program for Reverse a String.
7. Program for Fibonacci series using do while.
8. Program for Factorial using for loop.
9. Calculation of Mathematical Operations using switch case.
10. Program using Constructor.
11. Prepare an Employee Pay Bill using Hierarchical Inheritance.
12. Program using Interface.
13. Preparation of Students' Mark List using Multilevel Inheritance.
14. Program using Packages.
15. Program using Exceptions.
16. Program using Multiple Threads.
17. Program with Priority Concept in Thread.
18. Displaying a Message in Applet.

19. Designing Shapes in Applet.
20. Passing Parameters in Applet.

Course Code 20UCCA31P	PO1		PO2		PO3	PO4		PO5	PO6	PO7
	PSO 1.a	PSO 1.b	PSO 2.a	PSO 2.b	PSO 3	PSO 4.a	PSO 4.b	PSO 5	PSO 6	PSO 7
CO1	H	H	L	–	–	–	–	L	–	–
CO2	H	H	–	–	–	–	–	L	–	–
CO3	H	H	–	–	–	–	–	M	–	–
CO4	H	H	–	–	–	–	–	M	M	–
CO5	H	H	L	–	–	–	–	M	M	–

Dr. A. Rama
Head of the Department

Mrs.K.Kasthuri
Mrs.P.Sudha
Course Designers



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VIRUDHUNAGAR - 626 001

B.Com. (Computer Applications) (2023 – 2024 onwards)

Semester III	PROGRAMMING WITH JAVA – LAB	Hours/Week: 5	
Allied Course		Credits: 3	
Course Code 20UCCA31PN		Internal 40	External 60

COURSE OUTCOMES

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

CO1: write the basic structure of a Java program. [K3]

CO2: describe specific features including data types, operators, control structures, array, inheritance, interface, package, thread and applet. [K3]

CO3: enter the coding to execute the program. [K3]

CO4: run the program and explain the output of the Java program. [k3]

CO5: justify the answer for viva voce questions.[K4]

LIST OF PRACTICAL

1. Program for swapping two Numbers and Perfect Number Checking.
2. Program using Command Line arguments.
3. Program for Reverse a String.
4. Program for String Manipulation.
5. Program for Factorial using for loop.
6. Calculation of Mathematical Operations using switch case.
7. Program using Constructor.
8. Program for Volume calculation using Overloading.
9. Prepare an Employee Pay Bill using Hierarchical Inheritance.
10. Program using Interface.
11. Preparation of Students' Mark List using Multilevel Inheritance.
12. Program using Packages.
13. Displaying a Message in Applet.
14. Designing Shapes in Applet.
15. Passing Parameters in Applet.

Course Code 20UCCA31PN	PO1		PO2		PO3	PO4		PO5	PO6	PO7
	PS O 1.a	PSO 1.b	PSO 2.a	PSO 2.b	PSO 3	PSO 4.a	PSO 4.b	PSO 5	PSO 6	PSO 7
CO 1	H	H	L	–	–	–	–	L	–	–
CO 2	H	H	–	–	–	–	–	L	–	–
CO 3	H	H	–	–	–	–	–	M	–	–
CO 4	H	H	–	–	–	–	–	M	M	–
CO 5	H	H	L	–	–	–	–	M	M	–

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B.Com. (Computer Applications) (2020 – 21 onwards)

Semester III	SOFT SKILLS DEVELOPMENT	Hours/Week: 2	
Skill Enhancement Course		Credits: 2	
Course Code 20UCOS31		Internal 40	External 60

COURSE OUTCOMES

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

CO1: state the basic concepts of soft and hard skills. [K1]

CO2: describe the importance and components of soft skills. [K2]

CO3: apply the techniques of soft skills in stress management, preparation of resume and interview. [K3]

CO4: analyse the factors influencing soft skills. [K4]

CO5: identify the good manners and develop the soft skills. [K4]

UNIT I

Soft Skills : Meaning – Definition – Soft Skills Vs Hard Skills – Significance of Soft Skills – Components of Soft Skills – Practice of Soft Skills – Factors Determining Soft Skill – Biological Factors – Family and Social Factors – Situational Factors – Cultural Factors.

(6 Hours)

UNIT II

Art of Listening: Principles of Listening – Types of Listening – Tips to Improve Listening.

Art of Speaking: Features of Speaking –Activities that Improve Speaking

Art of Reading: Importance of Reading – Types of Reading –Tips for Effective Reading.

Art of Writing: Importance of Writing Skills – Tips for Improving Writing.

(6 Hours)

UNIT III

Interpersonal Behaviour: Meaning – Types – Co-operative Behaviour–Conflicting Behaviour - Strategies of Interpersonal Conflict Resolution

Time Management: Meaning – Secrets of Time Management – Difficulties in Time Management –Tips for Successful Time Management.

Stress Management: Meaning – Effects of Stress – Kinds of Stress – Tips for Effective Stress Management. (6 Hours)

UNIT IV

Preparing Curriculum Vitae, Resume: Meaning of Resume, CV and Bio-Data, Tips for Writing an Application Letter – Specimen of Solicited and Unsolicited Application Letter – Preparation of CV –Tips for Preparation of CV – Specimen of CV, Bio-Data and Resume.

Group Discussion: Meaning, Purpose of Group Discussion – Tips for Group Discussion. (6 Hours)

UNIT V

Interview: Meaning – Job Interview – Preparations to Face Interview – Preparation Before, During and After Interview – Role of Interviewer.

Telephonic Interview: Tips for the Preparation of Telephonic Interview – Practice for Telephonic Interview – Points Considered During and After Telephonic Interview – Virtual Interview.

Job Fair: Meaning – Tips to attend Job Fair. (6 Hours)

SELF STUDY FOR ASSIGNMENT

1. Self-introduction, Conversation with your Senior College Mate about the College Environment.
2. Good Manners and Conduct.

TEXT BOOK

Rama, A., Kanthimathi, P.T. & Subasini, M.(2019). *Soft Skills*, Chennai: New Century Book House (P) Ltd., First Edition.

REFERENCE BOOKS

1. Alex, K. (2011). *Soft Skills*, New Delhi: S.Chand Company Limited, 2nd Revised Edition.
2. Natarajan.L.& Santhakumari, P. (2018). *Soft Skills Development*, Chennai: Margham Publication, 1st Edition.

Course Code	PO1		PO2		PO3	PO4		PO5	PO6	PO7
	PSO 1.a	PSO 1.b	PSO 2.a	PSO 2.b	PSO 3	PSO 4.a	PSO 4.b	PSO 5	PSO 6	PSO 7
20UCOS31										
CO1	L	–	L	M	-	–	–	–	M	-
CO2	L	-	L	M	-	-	–	-	M	-
CO3	H	–	L	M	-	-	-	–	H	M
CO4	M	–	L	M	-	-	-	-	M	-
CO5	H	-	L	M	-	-	-	-	L	L

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B.Com. (Computer Applications) (2020 – 21 onwards)

Semester IV	PARTNERSHIP ACCOUNTING	Hours/Week: 6	
Core Course		Credits: 5	
Course Code 20UCOC41		Internal 25	External 75

COURSE OUTCOMES

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

CO1: describe the basic concepts and terminologies used in partnership accounting.

[K1]

CO2: explain the accounting treatment under different situations of partnership accounting. [K2]

CO3: apply the accounting procedures to solve the problems in partnership accounting.

[K3]

CO4: analyse the various methods of accounting under different circumstances. [K4]

CO5: compare the balance sheet with the statement of affairs and distinguish various types of partners. [K5]

UNIT I

Partnership: Meaning of Partnership – Partnership Deed –Profit and Loss Appropriation Account –Capital Accounts of Partners.

Admission of a Partner: Accounting Adjustments –Adjustment for Goodwill (as per New Accounting Standard) (20 Hours)

UNIT II

Retirement of a Partner: Accounting Problems – Payment to the Retiring Partner.

Death of a Partner: Amount due to the Deceased Partner – Joint Life Policy Account –Accounting Treatment. (22 Hours)

UNIT III

Dissolution of a Firm: Accounting Treatment.

Insolvency of Partners: Insolvency of a Partner – Garner Vs Murray Case – Insolvency of Two Partners – Insolvency of all the Partners – Piecemeal Distribution – Proportionate Capital Method – Maximum Loss Method.

(18 Hours)

UNIT IV

Amalgamation of Firms: Accounting Treatment.

Sale of Partnership to a Limited Company: Accounting Treatment. (15 Hours)

UNIT V

Insolvency of a Partnership Firm: Procedure under Insolvency Acts – Distinction between Insolvency of an Individual and a Partnership Firm – Preparation of Statement of Affairs – Deficiency Account. (15 Hours)

SELF STUDY FOR ASSIGNMENT

1. Types of Partners.
2. Difference between Balance Sheet and Statement of Affairs.

Note:

Composition of Question paper:

Theory : 33%

Problem : 67%

TEXT BOOK

Reddy, T.S., & Murthy, A. (2011). *Financial Accounting*, Chennai: Margham Publications, 6th Revised Edition, Reprint 2018.

REFERENCE BOOKS

1. Arulanandam, M.A., & Raman, K.S. (2014). *Advanced Accountancy*, Mumbai: Himalaya Publishing House, 9th Revised Edition, Reprint 2016.
2. Gupta, R.L., & Radhasamy, M. (2007). *Advanced Accountancy*, New Delhi: Sultan Chand & Sons, 13th Revised Edition, Reprint 2009.

Course Code 20UCOC41	PO1		PO2		PO3	PO4		PO5	PO6	PO7
	PSO 1.a	PSO 1.b	PSO 2.a	PSO 2.b	PSO 3	PSO 4.a	PSO 4.b	PSO 5	PSO 6	PSO 7
CO1	H	L	M	M	L	L	L	-	-	-
CO2	H	M	L	L	-	M	L	-	L	M
CO3	H	H	L	L	L	L	M	-	L	M
CO4	H	L	L	L	M	L	L	-	M	-
CO5	M	L	-	-	-	L	L	-	-	-

Dr. A. Rama
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 Dr. B. Nandhini
 Dr. K. Nivedha
Course Designers



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Semester IV	PARTNERSHIP ACCOUNTING	Hours/Week: 6	
Core Course		Credits: 5	
Course Code 20UCOC41N		Internal 25	External 75

COURSE OUTCOMES

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

- CO1: describe the basic concepts, procedure for registration and terminologies used in partnership accounting. [K1]
- CO2: explain the accounting treatment under different situations of partnership accounting. [K2]
- CO3: apply the accounting procedures to solve the problems in partnership accounting.[K3]
- CO4: analyse the various methods of accounting under different circumstances. [K4]
- CO5: compare the balance sheet with the statement of affairs and distinguish various types of partners. [K5]

UNIT I

Partnership: Meaning of Partnership – Partnership Deed – Registration of firms- Procedure for Registration (Sec 58 and 59) - Limited Liability Partnership –meaning- Definition- Difference between limited liability partnership and traditional partnership firm - Profit and Loss Appropriation Account –Capital Accounts of Partners.

Admission of a Partner: Accounting Adjustments –Adjustment for Goodwill (as per New Accounting Standard) (20 Hours)

UNIT II

Retirement of a Partner: Accounting Problems – Payment to the Retiring Partner.

Death of a Partner: Amount due to the Deceased Partner – Joint Life Policy Account –Accounting Treatment. (22 Hours)

UNIT III

Dissolution of a Firm: Accounting Treatment.

Insolvency of Partners: Insolvency of a Partner – Garner Vs Murray Case – Insolvency of Two Partners – Insolvency of all the Partners – Piecemeal Distribution – Proportionate Capital Method – Maximum Loss Method. (18 Hours)

UNIT IV

Amalgamation of Firms: Accounting Treatment.

Sale of Partnership to a Limited Company: Accounting Treatment. (15 Hours)

UNIT V

Insolvency of a Partnership Firm: Procedure under Insolvency Acts – Distinction between Insolvency of an Individual and a Partnership Firm – Preparation of Statement of Affairs – Deficiency Account. (15 Hours)

SELF STUDY FOR ASSIGNMENT

1. Types of Partners.
2. Difference between Balance Sheet and Statement of Affairs.

Note:

Composition of Question paper:

Theory : 33%

Problem : 67%

TEXT BOOK

Reddy, T.S., & Murthy, A. (2011). *Financial Accounting*, Chennai: Margham Publications, 6th Revised Edition, Reprint 2018.

REFERENCE BOOKS

1. Arulanandam, M.A., & Raman, K.S. (2014). *Advanced Accountancy*, Mumbai: Himalaya Publishing House, 9th Revised Edition, Reprint 2016.
2. Gupta, R.L., & Radhasamy, M. (2007). *Advanced Accountancy*, New Delhi: Sultan Chand & Sons, 13th Revised Edition, Reprint 2009.

Course Code 20UCOC41N	PO1		PO2		PO3	PO4		PO5	PO6	PO7
	PSO 1.a	PSO 1.b	PSO 2.a	PSO 2.b	PSO 3	PSO 4.a	PSO 4.b	PSO 5	PSO 6	PSO 7
CO1	H	L	M	M	L	L	L	-	-	-
CO2	H	M	L	L	-	M	L	-	L	M
CO3	H	H	L	L	L	L	M	-	L	M
CO4	H	L	L	L	M	L	L	-	M	-
CO5	M	L	-	-	-	L	L	-	-	-

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V.V.VANNIAPERUMAL COLLEGE FOR WOMEN

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Re-accredited with 'A' Grade (3rd Cycle) by NAAC

VIRUDHUNAGAR - 626 001

B.Com. (Computer Applications)

(2020 – 21 onwards)

Semester IV	BUSINESS MATHEMATICS	Hours/Week: 5	
Core Course		Credits: 5	
Course Code 20UCOC42		Internal 25	External 75

COURSE OUTCOMES

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

- CO1: describe the concepts of business mathematics. [K1]
- CO2: explain the relevant elements, formulae and diagrams in business mathematics. [K2]
- CO3: solve problems using basic formulae/matlab. [K3]
- CO4: analyse the situation and find out the answers by applying advanced formulae. [K4]
- CO5: prove demorgan's law diagrammatically and estimate the components of simple interest. [K5]

UNIT I

Number System - Arithmetic Progressions(A.P): n^{th} term of an A.P - Sum of First 'n' Natural Numbers –Sum of n terms of an A.P --Geometric Progression (G.P) – n^{th} term of a G.P - Sum of n terms of a G.P – Permutations – Fundamental Counting Principles – Circular Permutations – Combinations – Permutation Vs Combination. (15 Hours)

UNIT II

Elements of Set Theory: Definition –Symbols–Roster Method, Rule Defining Method and Description Method – Types of Sets – Union and Intersections – Subsets – Complements – Difference of Two Sets – Solving Problems using Demorgan's Law.

(12 Hours)

UNIT III

Matrices: Types – Addition – Multiplication – Matrix Inversion – Determinants - Properties – Solving a System of Linear Equation using Matrix Inversion – Matrix Manipulation using Matlab. (18 Hours)

UNIT IV

Common Arithmetic: Compound Interest – Effective Rate of Interest – Depreciation – Annuity – Present Value – Discounting of Bills – Face Value of Bills – Due Date – Banker's Discount – True Discount – Banker's Gain – Ethical Guidelines for Mathematical practices. (15 Hours)

UNIT V

Calculus: Differential Calculus (excluding trigonometric function) – Rules - Sum Rule – Product Rule – Quotient Rule – Function of a Function Rule (simple problems only) – Maxima and Minima – Methods of Integral Calculus – Rules (excluding integration by parts or fractional integration) (simple problems only). (15 Hours)

SELF STUDY FOR ASSIGNMENT

1. Venn Diagram - Demorgan's Law.
2. Simple Interest.

Note:**Composition of the Question Paper:**

Theory	: 20 %
Problems	: 80 %

TEXT BOOKS

1. Ponnien Selvi, M., & Sridevi, N. (2011). *Business Mathematics*, Virudhunagar: Yoga Publishing House, 2nd Revised and Enlarged Edition, (Unit I).
2. Manoharan, M., & Elango, C. (2007). *Business Mathematics*, Palani: Palani Paramount Publications, 4th Revised and Enlarged Edition, Reprint 2018.

REFERENCE BOOKS

1. Vittal, P.R. (2012). *Business Mathematics*, Chennai: Margham Publications, 6th Edition.
2. Sundaresan, V., & Jeyaseelan. (2008). *An Introduction to Business Mathematics*, New Delhi: S. Chand & Company Ltd.

Course Code 20UCOC42	PO1		PO2		PO3	PO4		PO5	PO6	PO7
	PSO 1.a	PSO 1.b	PSO 2.a	PSO 2.b	PSO 3	PSO 4.a	PSO 4.b	PSO 5	PSO 6	PSO 7
CO1	H	L	L	M	M	L	L	-	-	-
CO2	H	M	L	L	-	-	L	-	-	-
CO3	H	H	L	L	M	L	M	M	-	M
CO4	H	L	L	L	-	-	L	-	-	-
CO5	M	L	-	M	-	L	L	-	-	-

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B.Com (Computer Applications)

(2020 – 21 onwards)

Semester IV	BANKING THEORY, LAW AND PRACTICE	Hours/Week: 5	
Core Course		Credits: 5	
Course Code 20UCOC43		Internal 25	External 75

COURSE OUTCOMES

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

CO1: state the various concepts related to banking and e-banking. [K1]

CO2: describe the relevant provisions of Act regarding banking and e-banking. [K2]

CO3: apply the procedures involved in banking and e-banking activities. [K3]

CO4: analyse the precautions to be taken by bankers and customers in any banking transactions. [K4]

CO5: compare various deposits and evaluate the impact of technology in banking system. [K5]

UNIT I

Introduction: Banking – Definition – Meaning of Banker and Customer – Relationship between a Banker and a Customer – Special Types of Customers – Minor, Lunatic, a Partnership Firm and a Joint Stock Company – General Precautions for Opening an Account – Types of Deposits - Current Deposit, Savings Deposit, Fixed Deposit and Recurring Deposit. (15 Hours)

UNIT II

Negotiable Instruments : Features – Cheque – Meaning – Definition – Features – Drawing of a Cheque – Crossing of a Cheque and its Significance – Kinds of Crossing – Endorsement – Meaning – Definition – Kinds of Endorsement – Regularity of Endorsement. (15 Hours)

UNIT III

Paying Banker: Precautions before Honouring a Cheque – Payment in Due Course – Holder in Due Course – Statutory Protection to a Paying Banker.

Collecting Banker: Holder for Value – Statutory Protection – Duties of a Collecting Banker. (15 Hours)

UNIT IV

Loans and Advances : Principles of Sound Lending –Forms of Advances – Modes of Charging Security – Mortgage, Hypothecation, Pledge and Lien. (15 Hours)

UNIT V

Electronic Banking and Electronic Payments: Electronic Banking – Advantages and Disadvantages – Core Banking Solutions – Features – Advantages and Disadvantages – Cheque Truncation System – Real Time Gross Settlement – National Electronic Fund –Cash Deposit Machine – Automated Teller Machine –Debit Card –Credit Card – Smart Card.

(15 Hours)

SELF STUDY FOR ASSIGNMENT

1. Current Deposit Vs Savings Deposit.
2. Impact of Technology on Banking System.

TEXT BOOKS

1. Gordon, E., & Natarajan, K.(2017). *Banking Theory Law and Practice*, Mumbai: Himalaya Publishing House Pvt.Ltd., 26thRevised Edition.(Unit I – IV)
2. Rama, A., & Aruna Devi, A.(2019). *Banking Technology*, Chennai: New Century Book House (P) Ltd. 5th Revised Edition. (Unit V).

REFERENCE BOOKS

1. Varshney, P.N. (2014). *Banking Law and Practice*, New Delhi: Sultan Chand and Sons.
2. Kandasami, K.P., Natarajan, S., & Parameswaran, R. (2009). *Banking Law and Practice*, New Delhi : S.Chand and Company Ltd. 4th Revised Edition, Reprint 2013.

Course Code 20UCOC43	PO1		PO2		PO3	PO4		PO5	PO6	PO7
	PSO 1.a	PSO 1.b	PSO 2.a	PSO 2.b	PSO 3	PSO 4.a	PSO 4.b	PSO 5	PSO 6	PSO 7
CO1	H	H	L	L	L	-	-	M	-	-
CO2	H	H	L	L	L	-	-	M	-	M
CO3	H	H	L	L	L	L	L	M	M	-
CO4	H	H	L	L	-	-	-	M	-	M
CO5	H	H	L	L	L	L	L	H	-	-

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VIRUDHUNAGAR - 626 001

B.Com. (Computer Applications) (2020 – 21 onwards)

Semester IV	DATABASE MANAGEMENT SYSTEM	Hours/Week: 4	
Allied Course		Credits: 3	
Course Code 20UCCA41		Internal 25	External 75

COURSE OUTCOMES

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

- CO1: describe the basic concepts of Database Management System. [K1]
- CO2: explain the DBMS models, terminologies of SQL and PL/SQL. [K2]
- CO3: apply various models, operators, data types, and concepts in DBMS. [K3]
- CO4: analyze the DBMS models, incorporate SQL operators in programming. [K4]
- CO5: evaluate the utilization of data normalization, procedures and packages. [K5]

UNIT I

Introduction to Database Management Systems (DBMS): Characteristics of Data in a Database – Database Management Systems – Types of DBMS – Hierarchical Model – Network Model – Relational Model – Object Oriented Model – Object Relational Model – Comparison Between Various Database Model. (13 Hours)

UNIT II

Entity Relationship (E–R) Modeling: Introduction – E–R Model – Components of E–R Model – E–R Modeling Symbols.

Introduction to Structured Query Language: Introduction – History of SQL – Characteristics of SQL – Advantages of SQL – SQL Data Types – Types of SQL Commands – SQL Operators – Arithmetic Operators – Comparison Operators – Logical Operators – SET Operators. (12 Hours)

UNIT III

Tables, Views and Indexes: Tables – Views – Indexes – Aggregate Functions – Joins and Unions. (12 Hours)

UNIT IV

Introduction to PL/SQL: Introduction – PL/SQL Variables – PL/SQL Data Types – Control Structures – Iterative Control Statements. (11 Hours)

UNIT V

PL/SQL Programming: Cursors – PL/SQL Exceptions – PL/SQL Triggers – Types of Triggers. (12 Hours)

SELF STUDY FOR ASSIGNMENT

1. Normalization.
2. Procedures and Packages.

TEXT BOOK

Alexis Leon., & Mathews Leon, (2008). *Data Base Management System*, Chennai: Vijay Nicole Imprints Pvt. Ltd.

REFERENCE BOOKS

1. Raghu Ramakrishnan., & Johannes Gehrke, (2003). *Data Base Management System*. New Delhi: MCGraw Hill, 3rd Edition.
2. Abraham Silberschatz., Henry F.Korth., & Sudarshan, S. (2006). *Data Base System Concepts*, New Delhi: MCGraw Hill International Edition, 5th Edition.

Course Code 20UCCA41	PO1		PO2		P O3	PO4		PO5	PO6	PO7
	PSO 1.a	PSO 1.b	PSO 2.a	PSO 2.b	PSO 3	PSO 4.a	PSO 4.b	PSO 5	PSO 6	PSO 7
CO1	H	H	L	M	L	–	–	M	–	–
CO2	H	H	–	M	L	–	–	M	–	–
CO3	H	H	–	–	L	–	–	M	–	–
CO4	H	H	–	–	–	–	–	M	–	–
CO5	H	H	L	–	–	–	–	M	–	L

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Mrs. T. Veiluvanth
Dr.R.Bagavathilakshmi
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VIRUDHUNAGAR - 626 001

B.Com. (Computer Applications)

(2022 – 2023 onwards)

Semester IV	DATABASE MANAGEMENT SYSTEM	Hours/Week: 4	
Allied Course		Credits: 3	
Course Code 20UCCA41N		Internal 25	External 75

COURSE OUTCOMES

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

- CO1: describe the basic concepts of Database Management System. [K1]
- CO2: explain the DBMS models, terminologies of SQL and PL/SQL. [K2]
- CO3: apply various models, operators, data types, and concepts in DBMS. [K3]
- CO4: analyze the DBMS models, incorporate SQL operators in programming. [K4]
- CO5: evaluate the utilization of data normalization, procedures and packages. [K5]

UNIT I

Introduction to Database Management Systems (DBMS): Characteristics of Data in a Database – Database Management Systems – Types of DBMS – Hierarchical Model – Network Model – Relational Model – Object Oriented Model – Object Relational Model – Comparison Between Various Database Model.

(13 Hours)

UNIT II

Introduction to Structured Query Language: Introduction – History of SQL – Characteristics of SQL – Advantages of SQL – SQL Data Types – Types of SQL Commands – SQL Operators – Arithmetic Operators – Comparison Operators – Logical Operators – SET Operators. – Queries and Subqueries.

(12 Hours)

UNIT III

Tables, Views and Indexes: Tables – Views – Indexes – Aggregate Functions – Joins and Unions.

(12 Hours)

UNIT IV

Introduction to PL/SQL: Introduction – PL/SQL Variables – PL/SQL Data Types – Control Structures – Iterative Control Statements. (11 Hours)

UNIT V

PL/SQL Programming: Cursors – PL/SQL Triggers – Types of Triggers – Procedures - Packages. (12 Hours)

SELF STUDY FOR ASSIGNMENT

1. Normalization.
2. Functions in PL/SQL.

TEXT BOOK

Alexis Leon., & Mathews Leon, (2008). *Data Base Management System*, Chennai: Vijay Nicole Imprints Pvt. Ltd.

REFERENCE BOOKS

1. Raghu Ramakrishnan., & Johannes Gehrke, (2003). *Data Base Management System*. New Delhi: MCGraw Hill, 3rd Edition.
2. Abraham Silberschatz., Henry F.Korth., & Sudarshan, S. (2006). *Data Base System Concepts*, New Delhi: MCGraw Hill International Edition, 5th Edition.

Course Code 20UCCA41N	PO1		PO2		PO3	PO4		PO5	PO6	PO7
	PSO 1.a	PSO 1.b	PSO 2.a	PSO 2.b	PSO 3	PSO 4.a	PSO 4.b	PSO 5	PSO 6	PSO 7
CO 1	H	H	L	M	L	–	–	M	–	–
CO 2	H	H	–	M	L	–	–	M	–	–
CO 3	H	H	–	–	L	–	–	M	–	–
CO 4	H	H	–	–	–	–	–	M	–	–
CO 5	H	H	L	–	–	–	–	M	–	L

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VIRUDHUNAGAR - 626 001

B.Com. (Computer Applications) (2020 – 21 onwards)

Semester IV	DATABASE MANAGEMENT SYSTEM – LAB	Hours/Week: 5	
Allied Course		Credits: 3	
Course Code 20UCCA41P		Internal 40	External 60

COURSE OUTCOMES

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

- CO1: write the basic structure of a PL/SQL program and general procedure of a oracle program. [K3]
- CO2: describe the specific features including data types, control statements, SQL commands, views, joins, aggregate functions, cursor, triggers and exception handling. [K3]
- CO3: enter the codings to execute the program. [K3]
- CO4: run the program and explain the output of the PL/SQL program. [K3]
- CO5: justify the answer for viva voce questions. [K4]

LIST OF PRACTICAL

Oracle:

1. Creation a Table for Employee details in Structured Query Language (SQL) using DDL and DML Commands.
2. Create a Table for Student details using Transaction Control Statements.
3. Prepare a Table for Student details using Aggregate Function.
4. Query using Operators.
5. Prepare an Employee details by having Views clauses.
6. Prepare a Table with Customer details having various types of Joins.

PL/SQL:

7. Swapping two Numbers [Simple Block Statements]
8. Student Mark Statement [IF statement]
9. Minimum Balance Checking [IF–Else Statement]
10. Sum of Digits [While loop]
11. Area of Circle [While loop]
12. Factorial [For]
13. Program for Function.
14. Program for Exception Handling.
15. Program for Cursor.
16. Program for Trigger.

Course Code 20UCCA41P	PO1		PO2		PO3	PO4		PO5	PO6	PO7
	PSO 1.a	PSO 1.b	PSO 2.a	PSO 2.b	PSO 3	PSO 4.a	PSO 4.b	PSO 5	PSO 6	PSO 7
CO1	H	H	L	–	–	–	–	L	–	–
CO2	H	H	–	–	–	–	–	L	–	–
CO3	H	H	–	–	–	–	–	M	–	–
CO4	H	H	–	–	–	–	–	M	M	–
CO5	H	H	L	–	–	–	–	M	M	–

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B.Com. (Computer Applications) (2022 – 2023 onwards)

Semester IV	DATABASE MANAGEMENT SYSTEM – LAB	Hours/Week: 5	
Allied Course		Credits: 3	
Course Code 20UCCA41PN		Internal 40	External 60

COURSE OUTCOMES

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

CO1: write the basic structure of a PL/SQL program and general procedure of a oracle program. [k3]

CO2: describe the specific features including data types, control statements, SQL commands, views, joins, aggregate functions, cursor, triggers and exception handling. [K3]

CO3: enter the coding to execute the program. [K3]

CO4: run the program and explain the output of the PL/SQL program. [k3]

CO5: justify the answer for viva voce questions. [K4]

LIST OF PRACTICAL

Oracle:

1. Creation a Table for Employee details in Structured Query Language (SQL) using DDL and DML Commands.
2. Create a Table for Student details using Transaction Control Statements.
3. Prepare a Table for Student details using Aggregate Function.
4. Query using Operators.
5. Perform various operation on Library details using Sub query
6. Prepare an Employee details by having Views clauses.
7. Prepare a Table with Customer details having various types of Joins.

PL/SQL:

8. Minimum Balance Checking [IF–Else Statement]
9. Sum of Digits [While loop]

10. Factorial [For]
11. Program for Function.
12. Program for Cursor.
13. Program for Trigger.
14. Program for Procedure.
15. Program for Package.

Course Code 20UCCA41PN	PO1		PO ₂		PO3	PO4		PO5	PO6	PO7
	PSO 1.a	PSO 1.b	PSO 2. a	PSO 2.b	PSO 3	PSO 4.a	PSO 4.b	PSO 5	PSO 6	PSO 7
CO 1	H	H	L	–	–	–	–	L	–	–
CO 2	H	H	–	–	–	–	–	L	–	–
CO 3	H	H	–	–	–	–	–	M	–	–
CO 4	H	H	–	–	–	–	–	M	M	–
CO 5	H	H	L	–	–	–	–	M	M	–

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B.Com. (Computer Applications) (2020 – 21 onwards)

Semester IV	MATHEMATICS FOR COMPETITIVE EXAMINATIONS	Hours/Week:2	
Skill Enhancement Course		Credits: 2	
Course Code 20UCOS41		Internal 40	External 60

COURSE OUTCOMES

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

- CO1: recall the basic formulae in Mathematics. [K1]
- CO2: discuss the applications of mathematics in real life. [K2]
- CO3: develop their analytical ability and computational skills. [K3]
- CO4: apply their skills in solving problems with more confidence. [K3]
- CO5: analyze and solve aptitude problems efficiently. [K4]

UNIT I

Problems on Numbers (5 Hours)

UNIT II

Percentage (7 Hours)

UNIT III

Profit and Loss (7 Hours)

UNIT IV

Time and Work (6 Hours)

UNIT V

Odd Man Out & Series (5 Hours)

TEXT BOOK

Aggarwal, R.S. (Reprint 2013). *Quantitative Aptitude for Competitive Examinations*,
(Seventh Revised Edition), New Delhi: S.Chand Publications.

Unit	Chapter	Section
	Section-I Arithmetical ability	
I	7	Solved Examples: 1 - 15 Problems and Exercise 7A: 1 - 20 Problems
II	10	Solved Examples: 1 - 15 Problems and Exercise 10: 1 - 20 Problems
III	11	Solved Examples: 1 - 20 Problems and Exercise 11A: 1 - 15 Problems
IV	15	Solved Examples: 1 - 11 Problems and Exercise 15A: 1 - 10 Problems
V	35	Exercise 35: 1 - 50 Problems

Course Code 20UCOS41	PO1	PO2	PO3	PO4	PO5	PO6	PO7
CO1	H	M	H	M	-	L	-
CO2	H	L	H	M	-	M	-
CO3	H	M	H	H	-	M	-
CO4	H	L	H	H	-	M	-
CO5	H	M	H	H	-	M	-

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VIRUDHUNAGAR - 626 001

B.Sc. MATHEMATICS

(2020 -21 onwards)

Semester II	FUNDAMENTALS OF ACCOUNTING	Hours/Week: 2	
Skill Enhancement Course		Credits: 2	
Course Code		Internal	External
20UMTS21		40	60

COURSE OUTCOMES

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

CO1: identify and be familiar with the classification of accounts and accounting terminology. [K1]

CO2: describe the rules of accounting and accounting process. [K2]

CO3: apply the rules for journalising, preparing day book and balancing the accounts. [K3]

CO4: prepare the final accounts. [K4]

CO5: integrate the trial balance and balance sheet. [K4]

UNIT I

Accounting: Definition – Meaning – Book-keeping – Accounting Vs Book-keeping – Account – Types – Rules – Double Entry and Single Entry Systems – Differences. (7 Hours)

UNIT II

Journal: Meaning – Narration – Uses – Ledger – Meaning – Uses – Journal Vs Ledger.

(5 Hours)

UNIT III

Subsidiary Books : Sales, Purchases and Cash Book (Single Column only) – Trial Balance

(5 Hours)

UNIT IV

Final Accounts : Trading Account – Profit and Loss Account – Format – Meaning – Uses – Differences (Simple Problems only)

(6 Hours)

UNIT V

Balance Sheet: Meaning – Format - Uses – Difference between Balance Sheet and Trial Balance (Problems with adjustments related to Stock, Returns, Accruals, Out standings and Prepaid only) (7 Hours)

SELF STUDY FOR ASSIGNMENT

1. Advantages of Double Entry System.
2. Trade Discount Vs Cash Discount.

NOTE:**Composition of the Question Paper:**

Theory	:	40 %
Problems	:	60 %

TEXT BOOK

Nagarajan, K.L., Vinayakam, N., and Mani, P.L. (2013). *Principles of Accountancy*, New Delhi: Eurasia Publishing House Pvt. Ltd. - Chapters 1,2,3,4 & 6.

REFERENCE BOOKS

1. Arulanandam, M.A., and Raman, K.S. (2005). *Advanced Accountancy*, New Delhi: Himalaya Publishing House.
2. Gupta, R.L. and Radhaswamy, M. (2007). *Advanced Accountancy*, New Delhi: Sultan Chand & Sons.
3. Reddy, T.S., and Murthy. A. (2011). *Financial Accounting*, Chennai: Margham Publications, 6th Revised Edition, Reprint 2018.

Course Code 20UMTS21	PO1	PO2	PO3	PO4	PO5	PO6	PO7
CO1	H	H	-	-	-	-	-
CO2	H	H	-	-	-	-	L
CO3	H	H	L	L	-	-	L
CO4	H	H	L	L	-	-	L
CO5	H	H	L	L	-	L	L

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B.Sc. MATHEMATICS

(2022 -23 onwards)

Semester II	FUNDAMENTALS OF ACCOUNTING	Hours/Week: 2	
Skill Enhancement Course		Credits: 2	
Course Code 20UMTS21N		Internal 40	External 60

COURSE OUTCOMES

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

CO1: identify the accounting terminology and the purpose of preparing accounts. [K1]

CO2: explain the types, rules and format of statements and accounts. [K2]

CO3: use the process of accounts for preparing the books of accounts. [K3]

CO4: distinguish between accounting and book-keeping, journal and Ledger and trial balance and balance sheet. [K4]

CO5: summarise the books of accounts and integrate the trial balance and balance sheet. [K4]

UNIT I

Accounting: Meaning – Definition – Book-keeping – Accounting Vs. Book-keeping – Account – Accounting Terms - Types – Rules – Double Entry and Single Entry Systems – Differences. (7 Hours)

UNIT II

Journal: Meaning – Journalising - Narration –Ledger – Meaning – Purpose – Journal vs. Ledger. (5 Hours)

UNIT III

Subsidiary Books: Meaning – Purchase, Sales and Cash Book (Single Column only) – Trial Balance – Meaning – Principles. (5 Hours)

UNIT IV

Final Accounts: Meaning – Purpose – Preparation of Trading Account – Profit and Loss Account. (Simple Problems only) (6 Hours)

UNIT V

Balance Sheet: Meaning – Purpose – Difference between Balance Sheet and Trial Balance (Problems with adjustments related to Closing Stock only) (7 Hours)

SELF STUDY FOR ASSIGNMENT

1. Accounting Concepts.
2. Trade Discount vs. Cash Discount.

NOTE:

Composition of the Question Paper:

Theory	:	40 %
Problems	:	60 %

TEXT BOOK

Nagarajan, K.L., Vinayakam, N., and Mani, P.L. (2013). *Principles of Accountancy*, New Delhi: Eurasia Publishing House Pvt. Ltd., 4th Edition.

REFERENCE BOOKS

1. Arulanandam, M.A., and Raman, K.S. (2019). *Advanced Accountancy*, New Delhi: Himalaya Publishing House.
2. Gupta, R.L. and Radhaswamy, M. (2014). *Advanced Accountancy*, New Delhi: Sultan Chand & Sons.
3. Reddy, T.S., and Murthy. A. (2012). *Financial Accounting*, Chennai: Margham Publications, 6th Revised Edition, Reprint 2018.

Course Code 20UMTS21N	PO1	PO2	PO3	PO4	PO5	PO6	PO7
CO1	H	H	-	-	-	-	-
CO2	H	H	-	-	-	-	L
CO3	H	H	L	L	-	-	L
CO4	H	H	L	L	-	-	L
CO5	H	H	L	L	-	L	L

Dr. P. P. Shanthy
Head of the Department

Mrs. R.Atheeswari
Course Designer



V.V.VANNIAPERUMAL COLLEGE FOR WOMEN

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VIRUDHUNAGAR - 626 001

B.Com. (Computer Applications)

(2020–21 onwards)

Semester V	CORPORATE ACCOUNTING	Hours/Week: 6	
Core Course		Credits: 5	
Course Code 20UCOC51		Internal 25	External 75

COURSE OUTCOMES

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

- CO1: state the meaning of accounting concepts relating to issue and redemption of shares and debentures, amalgamation, absorption, reconstruction and liquidation of a company. [K1]
- CO2: describe the format and procedure for liquidator's final statement of account and final accounts of a company as per Companies Act 2013. [K2]
- CO3: apply the methods relating to issue and redemption of shares and debentures, amalgamation, absorption, reconstruction and liquidation of a company. [K3]
- CO4: analyse the methods used for issue of shares, valuation of shares and goodwill, purchase consideration, liquidator's remuneration, redemption of debentures and preference shares. [K4]
- CO5: discriminate the procedure for bonus issue and external reconstruction of a company. [K5]

UNIT I

Issue of Shares: Meaning– Methods – Issue of Shares for Cash Consideration and Non Cash Consideration – Issue of Shares at Par and at Premium – Under Subscription and Over Subscription – Pro-rata Allotment – Calls in Arrears – Forfeiture of Shares – Re-issue of Forfeited Shares– Right Shares. (18 Hours)

UNIT II

Preference Shares: Meaning – Types – Redemption of Preference Shares.

Debentures: Meaning – Types – Issue of Debentures – Methods – Consideration for Issue of Debentures – Terms relating to Issue Price and Conditions of Redemption of Debentures – Redemption without Provision – Redemption on Specified Due Date – Redemption in Instalments – Redemption by Conversion.

Profit Prior to Incorporation: Accounting Procedure as per Revised Schedule VI.

(18 Hours)

UNIT III

Final Accounts: Final Accounts of Joint Stock Companies as per Revised Schedule VI.

Goodwill: Meaning – Factors – Need – Methods of Valuation.

Shares: Meaning – Factors – Methods of Valuation.

(18 Hours)

UNIT IV

Amalgamation, Absorption and Reconstruction of Joint Stock Companies:

Meaning – Difference – Accounting Procedure in the Nature of Purchase only – Internal Reconstruction – Accounting Procedure.

(18 Hours)

UNIT V

Liquidator's Final Statement of Account: Liquidation – Meaning – Liquidator's Remuneration – Order of Payment – Secured Creditors – Preferential Creditors – Statement of Affairs – Deficiency Account – Liquidator's Final Statement of Account.

(18 Hours)

SELF STUDY FOR ASSIGNMENT

1. Provisions, procedure and accounting treatment for issuing Bonus Shares.
2. Procedure for External Reconstruction.

Note:

Composition of the Question Paper: Theory : 25%

Problems : 75%

TEXT BOOK

Reddy, T.S. & Murthy, A. (2015). *Corporate Accounting*, Chennai: Margham Publications, Revised Sixth Edition.

REFERENCE BOOKS

1. Gupta, R.L. & Radhasamy M, (2015). *Advanced Accountancy, Volume-II*, Delhi: Sultan Chand & Sons.
2. Arulanandam, M.A. & Raman. K.S., (2014). *Advanced Accountancy*, Mumbai: Himalaya Publishing House.

Course Code 20UCOC51	PO1		PO2		PO3	PO4		PO5	PO6	PO7
	PSO 1.a	PSO 1.b	PSO 2.a	PSO 2.b	PSO 3	PSO 4.a	PSO 4.b	PSO 5	PSO 6	PSO 7
CO1	H	H	H	H	-	H	-	-	L	-
CO2	H	H	H	H	-	H	-	-	L	-
CO3	H	H	H	H	M	H	-	-	L	-
CO4	H	H	H	H	M	H	M	-	L	-
CO5	H	H	H	H	M	H	M	-	L	-

Dr.A.Rama
Head of the Department

Dr. P. P. Shanthy
Dr. J. Premila
Dr. K. Nivedha
Course Designers



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VIRUDHUNAGAR - 626 001

B.Com (Computer Applications) (2023–24 onwards)

Semester V	CORPORATE ACCOUNTING	Hours/Week: 6	
Core Course		Credits: 5	
Course Code 20UCOC51N		Internal 25	External 75

COURSE OUTCOMES

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

- CO1: state the meaning of accounting concepts relating to issue and redemption of shares and debentures, amalgamation, absorption and liquidation of a company. [K1]
- CO2: describe the format and procedure for liquidator's final statement of account and final accounts of a company as per Companies Act 2013. [K2]
- CO3: apply the methods relating to issue and redemption of shares and debentures, amalgamation, absorption and liquidation of a company. [K3]
- CO4: analyse the methods used for issue of shares, valuation of shares and goodwill, purchase consideration, liquidator's remuneration, redemption of debentures and preference shares. [K4]
- CO5: discriminate the procedure for bonus issue, right issue and internal reconstruction of a company. [K5]

UNIT I

Issue of Shares: Meaning– Methods – Issue of Shares for Cash Consideration and Non Cash Consideration – Issue of Shares at Par and at Premium– Under Subscription and Over Subscription – Pro–rata Allotment – Calls in Arrears – Calls in Advance –Forfeiture of Shares – Re–issue of Forfeited Shares. (18 Hours)

TEXT BOOK

Reddy, T.S. & Murthy, A. (2015). *Corporate Accounting*, Chennai: Margham Publications, Revised Sixth Edition.

REFERENCE BOOKS

1. Gupta, R.L. & Radhasamy M, (2015). *Advanced Accountancy, Volume-I*, Delhi: Sultan Chand & Sons.
2. Arulanandam, M.A. & Raman. K.S., (2014). *Advanced Accountancy*, Mumbai: Himalaya Publishing House.

Course Code 20UCOC51N	PO1		PO2		PO3	PO4		PO5	PO6	PO7
	PSO 1.a	PSO 1.b	PSO 2.a	PSO 2.b	PSO 3	PSO 4.a	PSO 4.b	PSO 5	PSO 6	PSO 7
CO1	H	H	H	H	-	H	-	-	L	-
CO2	H	H	H	H	-	H	-	-	L	-
CO3	H	H	H	H	M	H	-	-	L	-
CO4	H	H	H	H	M	H	M	-	L	-
CO5	H	H	H	H	M	H	M	-	L	-

Dr.P.P.Shanthy
Head of the Department

Dr.V.Sakthidevi
Dr. K. Nivedha
Course Designers



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VIRUDHUNAGAR - 626 001

B.Com. (Computer Applications)

(2020-21 onwards)

Semester V	INCOME TAX LAW & PRACTICE - I	Hours/Week: 6	
Core Course		Credits: 5	
Course Code 20UCOC52		Internal 25	External 75

COURSE OUTCOMES

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

CO1: describe the various concepts in the Income Tax Act. [K1]

CO2: state the exempted incomes and explain the provisions relating to various heads of income under the Income Tax Act. [K2]

CO3: determine the residential status of an assessee and compute the incomes and deductions under various heads of income. [K3]

CO4: analyse the incidence of taxation and provisions relating to allowances, perquisites and depreciations. [K4]

CO5: compute income from house property which is partly let out and assess the residential status of a company. [K5]

UNIT I

Introduction to Income Tax Act, 1961: Brief History of Income Tax in India – Important Definitions: Assessment Year, Previous Year, Person, Assessee, Income, Gross Total Income, Total Income, Casual Income, Rules for Distinguishing Capital Receipts and Revenue Receipts and Capital Expenditure and Revenue Expenditure – Exemptions from Tax under Section 10. (18 Hours)

UNIT II

Residence and Tax Liability: Residence of Assessee – Types of Residents – Residential Status of an individual – Basic Conditions – Additional Conditions – Residential Status of HUF, Firm or AOP and every other Person – Incidence of Tax. (18 Hours)

UNIT III

Income from Salary and House Property: Salary – Different Forms of Salary.

Allowances: Fully Taxable Allowances, Allowances exempt up to specified limit, Fully exempted Allowances.

Perquisites :Perquisites Taxable in case of all Employees – Valuation of Perquisites: Residential Accommodation, Motor Car – Provident Fund, Gratuity, Pension, Earned Leave Salary – Deduction under Section 16 – Computation of Taxable Salary.

Income from House property: Basis of Charge- Annual Value of Buildings Let Out – Deduction under Section 24 – Buildings Self-occupied for Residential Purposes – Computation of Taxable Income from House Property. (18 Hours)

UNIT IV

Profits and Gains of Business or Profession : Business – Profession – Profits – Computation – Deductions Expressly Allowed (Section 30 to 37) – Expenses Expressly Disallowed - Expenses not Deductible in certain Circumstances – Deduction Allowable only on Actual Payment – Computation of Taxable Income from Business or Profession – Depreciation under Section 32. (18 Hours)

UNIT V

Capital Gains: Capital Asset – Transfer of Capital Asset – Cost of Acquisition – Computation of Capital Gains – Capital Gain Exempt from Tax.

Income from Other Sources: List of Incomes Chargeable under this Head – Allowable Deductions – Computation of Income from Other Sources. (18 Hours)

SELF STUDY FOR ASSIGNMENT

1. Residential status of a Company.
2. Computation of Income from House property which is partly let out.

NOTE:

Composition of the Question Paper: Theory : 25%

Problems: 75%

TEXT BOOK

Mehrotra, H.C., & Goyal. (Current Assessment Year). *Income Tax Law and Accounts*. New Delhi: Sahitya Bhawan Publishers.

REFERENCE BOOKS

1. Vinod, Singhanian, K.(Current Assessment Year). *Students Guide to Income Tax*. New Delhi: Taxmann Publications Private Ltd.
2. Gaur, V.P., & Narang, D.B. (Current Assessment Year). *Income Tax Law and Practice*. New Delhi: Kalyani Publishers.

Course Code 20UCOC52	PO1		PO2		PO3	PO4		PO5	PO6	PO7
	PSO 1.a	PSO 1.b	PSO 2.a	PSO 2.b	PSO 3	PSO 4.a	PSO 4.b	PSO 5	PSO 6	PSO 7
CO1	H	H	H	H	-	-	-	-	-	-
CO2	H	H	H	H	-	-	-	-	-	-
CO3	H	H	H	H	-	-	-	L	-	M
CO4	H	H	H	H	M	M	M	-	-	-
CO5	H	H	H	H	M	M	M	M	L	-

Dr.A.Rama
Head of the Department

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Dr.V.Shantha Meena
Dr.B.Jeya Sudha
Course Designers



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B.Com. (Computer Applications)
(2020–21 onwards)

Semester V	BUSINESS LEGISLATIONS – I	Hours/Week: 6	
Core Course		Credits: 5	
Course Code 20UCOC53		Internal 25	External 75

COURSE OUTCOMES

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

CO1: state the basic provisions of Law of Contract, Law of Agency, Sale of Goods

Act and Carriage of Goods Act. [K1]

CO2: explain the provisions of Law of Contract, Law of Agency, Sale of Goods

Act and Carriage of Goods Act in case of specific procedures. [K2]

CO3: apply the provisions of prescribed business legislations for a given situation. [K3]

CO4: analyse various cases where the provisions of prescribed business legislations are applicable. [K4]

CO5: distinguish the case laws related to consideration in contract and the rights of unpaid seller. [K5]

UNIT I

Law of Contract: Definition – Essential Elements of a Valid Contract – Classification of Contracts – Offer – What constitutes an offer? – Legal rules as to offer – Tenders – Acceptance – Who can accept? – Legal rules as to acceptance – Communication of Offer, Acceptance and Revocation: Mode of communication – When is communication complete? – Time for revocation of Offer and Acceptance – Revocation or lapse of offer – Consideration – Stranger to contract – Capacity to contract – Free Consent – Coercion – Undue Influence – Difference between coercion and undue influence – Fraud – Essential elements of fraud – Difference between fraud and misrepresentation – Misrepresentation – Mistake – Mistake of Law – Mistake of Fact – Legality of Object – When is Object Unlawful? – Unlawful and Illegal Agreements – Agreements Opposed to Public Policy.

(18 Hours)

UNIT II

Performance of Contracts: Offer to Perform – Requisites of a Valid Tender – Contracts Which need not be Performed – By Whom must Contracts be Performed – Time and Place of Performance – Reciprocal promises – Time as the Essence of the Contract – Various Modes of Discharge of Contracts – Breach of Contract – Remedies for Breach of Contract – Quasi Contracts. (18 Hours)

UNIT III

Law of Agency: Definition – Essentials of Relationship of Agency – Rules of Agency – Who can Employ an Agent? – Who may be an Agent? - Creation and Termination of Agency – Various Modes – Rights and Duties of Agent and Principal – Delegation of Authority – Difference between Sub-agent and Substituted Agent – Relations of Principal with Third Parties – Position of Principal and Agent in relation to Third Parties – Irrevocable Agency. (18 Hours)

UNIT IV

The Sale of Goods Act, 1930: Contract of Sale of Goods – Sale and Agreement to Sell – Essentials of a Contract of Sale – Distinction between Sale and Agreement to Sell – Sale and Hire Purchase Agreement – Distinction between Sale and Hire Purchase agreement – Subject Matter of Contract of Sale – Classification of Goods – Documents of Title to Goods – Conditions and Warranties – Transfer of Property and Title to Goods – Performance of Contract – Rights and Duties of Buyer and Seller. (18 Hours)

UNIT V

The Carriage of Goods Act: Carriage by Land – Classification of Carriers – Rights – Duties and Liabilities of Common Carrier – Goods – Carriage by Rail – Responsibility of Railway Administration as Carriers – Carriage by Sea – Contract of Affreightment – Charter Party – Bill of Lading – Carriage by Air - Definitions – Documents of Carriage – International Carriage by Air. (18 Hours)

SELF STUDY FOR ASSIGNMENT

1. Legal rules as to consideration and ‘A contract without consideration is void’
2. Rights of Unpaid Seller. .

TEXT BOOK

Kapoor, N.D., (2021). *Elements of Mercantile Law*, New Delhi: Sultan Chand & Sons, Thirty Eighth Revised Edition.

REFERENCE BOOKS

1. Gogna, P.P.S., (2014). *A Text Book of Mercantile Law*, New Delhi: S.Chand & Company Ltd.,
2. Pillai,R.S.N.,& Bagavathi, (2007). *Business Law*, New Delhi: S.Chand & Company Ltd.,
3. Shukla, M.C., (2017). *Mercantile Law*, New Delhi: S.Chand & Company Ltd.,

Course Code 20UCOC53	PO1		PO2		PO3	PO4		PO5	PO6	PO7
	PSO 1.a	PSO 1.b	PSO 2.a	PSO 2.b	PSO 3	PSO 4 .a	PSO 4.b	PSO 5	PSO 6	PSO 7
CO1	H	H	H	H	-	-	-	-	-	-
CO2	H	H	H	H	-	-	-	-	-	-
CO3	H	H	H	H	-	-	-	L	-	M
CO4	H	H	H	H	M	-	-	-	-	-
CO5	H	H	H	H	M	M	M	M	L	-

Dr. A. Rama
Head of the Department

Mrs. P. Kavitha
Mr.R.Rathinasabapathy
Dr. P. Sridevi
Course Designers



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VIRUDHUNAGAR - 626 001

B.Com. (Computer Applications)

(2020 – 21 onwards)

Semester V	WEB TECHNOLOGY	Hours/Week: 5	
Discipline Specific		Credits: 3	
Elective Course			
Course Code		Internal	External
20UCCE51		25	75

COURSE OUTCOMES

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

CO1: describe the basic concepts of web technology in general and HTML & CSS in particular. [K1]

CO2: explain the Internet technologies, Internet browsers and HTML tags. [K2]

CO3: use various HTML tags in web designing with ethical principles. [K3]

CO4: analyse the features and select appropriate tags for web designing. [K4]

CO5: compare and contrast the HTML & DHTML and evaluate the methods for java script. [K5]

UNIT I

Introduction to the Internet: Computer in Business – Networking – Internet – E-Mail – Resource Sharing – Gopher – World Wide Web – Usenet – Telnet – Bulletin Board Service – Wide Area Information Service.

Internet Technologies and Internet Browsers: Modem – Internet Addressing – Physical Connections – Telephone Lines – Internet Explorer – Netscape Navigator

Introduction to HTML: Designing a Home Page – History of HTML – HTML Generations – HTML documents – Anchor tag – Hyper Links – Sample HTML Documents – Ethical principles to be followed in web technology. (15 Hours)

UNIT II

Head and Body Sections: Header Section – Title – Links – Colorful Web Page – Comment Lines – Some Sample HTML documents.

Designing the Body Section: Heading printing – Aligning the headings – Horizontal Rule – Paragraph – Tab Settings – Images and Pictures – Embedding PNG format images.

(15 Hours)

UNIT III

Ordered and Unordered Lists: Lists – Unordered lists – Headings in a List – Ordered Lists – Nested Lists.

Table Handling: Tables – Table creation in HTML – Width of the Table and Cells – Cells Spanning and Multiple Rows/Columns – Coloring Cells – Column Specifications – Some Sample Tables.

(15 Hours)

UNIT IV

Style Sheets: Defining Styles – Elements of Styles – Linking a Style Sheet to an HTML Document – In-line Styles – External Styles Sheets – Internal Style Sheets – Multiple Styles.

Frames: Frameset Definition – Frame Definition – Nested Framesets.

(15 Hours)

UNIT V

Forms: Action Attribute – Method Attribute – Enctype Attribute – Dropdown Lists – Sample Forms.

(15 Hours)

SELF STUDY FOR ASSIGNMENT

1. Differentiate HTML from DHTML.
2. Methods of java script for webpage.

TEXT BOOK

Xavier,C., (2017). *World Wide Web Design with HTML*, Tata McGraw Hill Publishing Company.

REFERENCE BOOKS

1. Ivan Bayross, (2010). *Web Enabled Commercial Application Development using HTML*, BPB Publications , 4th Revised Edition.
2. Vikas Gupta, (2003). *Comdex Level Series Internet and Web Design*, Dreamtech Press.
3. Kris Jamsa, Konrad King, & Andy Anderson, (2002). *Html & Web Design: Tips & Techniques*, Tata McGraw Hill.

Course Code 20UCCE51	PO1		PO2		PO3	PO4		PO5	PO6	PO7
	PSO	PSO	PSO	PSO	PSO	PSO	PSO	PSO	PSO	PSO
	1.a	1.b	2.a	2.b	3	4.a	4.b	5	6	7
CO1	H	H	H	H	-	-	-	-	-	-
CO2	H	H	H	H	-	-	-	-	-	-
CO3	H	H	H	H	-	-	-	L	-	L
CO4	H	H	H	H	M	M	M	-	-	-
CO5	H	H	H	H	M	M	M	M	-	-

Dr.A.Rama
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VIRUDHUNAGAR - 626 001

B.Com. (Computer Applications)
(2020 – 21 onwards)

Semester V	VECTOR GRAPHICS	Hours/Week: 5	
Discipline Specific		Credits: 3	
Elective Course		Internal	External
Course Code 20UCCE52		25	75

COURSE OUTCOMES

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

CO1: describe the basic concepts related to CorelDraw software. [K1]

CO2: explain the tools used in CorelDraw. [K2]

CO3: apply the tools for designing book pages, invitations, visiting cards and letterheads with ethics. [K3]

CO4: analyse the features and select appropriate tools for specific applications. [K4]

CO5: evaluate the special effects to bitmaps and quick trace command in CorelDraw. [K5]

UNIT I

Introduction to CorelDraw Graphics SuiteX4: Understanding CorelDraw Graphics SuiteX4 – CorelDRAW Graphics SuiteX4 Applications – New and Enhanced Features in CorelDRAW Graphics Suite X4 – Getting Started with CorelDRAWX4 – Exploring the Workspace of CorelDRAW X4 – Title Bar – Menu Bar – Standard Toolbar - Property Bar – Toolbox – Drawing Page – Docker – Color Palette – Document Navigator - Scroll Bars – Navigator – Ruler – Drawing Basic Geometric Figures – Drawing a Line – Drawing a Rectangle – Drawing a Spiral – Saving the Drawing – Opening an Existing Document – Previewing the Drawing – Viewing the Drawing in Different -Views – Working with Page Layout – Modifying the Size and Orientation of a Page - Adding, Renaming and Deleting Page in a Drawing – Closing the Drawing and Quitting CorelDRAW - Ethical principles to be followed in CorelDRAW. (16 Hours)

UNIT II

Working with Lines: About Lines in CorelDraw – Drawing a Curve – Drawing Calligraphic Lines – About Outline Tool – Defining Lines and Outlines Settings – Creating a Calligraphic Outline – Adding an Arrowhead. (13 Hours)

UNIT III

Working with Objects: Selecting and Deselecting Objects – Deleting Objects – Sizing Objects – Rotating Objects – Combining Objects – Grouping in CorelDraw – Grouping Objects – Ungrouping Objects – Applying Convert to Curve Command on Objects – Converting an Object into a Curve Object – Selecting Color for an Object – Selecting a Color Using the Default Color Palette – Filling Objects – Using Uniform Fills – Using Pattern Fills. (15 Hours)

UNIT IV

Working with Text: Types of Text – Preparing a Layout for Using the Text – Creating Artistic Text – Creating Paragraph Text – Converting Text from One Type to Another – Changing the Appearances of Text – Changing a Font – Changing the Font Size and Color of the Text – Changing the Alignment – Applying Effects to the Text – Applying a Drop cap – Applying Bulleted List – Wrapping Paragraph Text Around Objects – Fitting Text to an Object's Path – Converting Text to an Object using Curve Command – Breaking Apart Text. (15 Hours)

UNIT V

Working with Bitmaps: About Vector and Bitmap Images – Bitmap Images – Vector Images – Changing Vector Images into Bitmap Images – Converting Vector Images into Bitmap Images – Converting Vector Images into a Bitmap when Exporting – Importing a Bitmap into a Drawing - Cropping, Resampling and Resizing a Bitmap – Cropping a Bitmap – Resampling a Bitmap – Resizing a Bitmap — Tracing Bitmaps. (16 Hours)

SELF STUDY FOR ASSIGNMENT:

1. Using Special Effects to Bitmaps.
2. The Quick Trace Command in CorelDRAW.

TEXT BOOK

Vikas Gupta, (2014). *Comdex 9-in-1 DTP Course Kit*, New Delhi. Dreamtech press.

REFERENCE BOOKS

1. Gary David Bouton, (2008). *CorelDRAW® X4: The Official Guide*, Tata McGraw Hill Education.
2. Dinesh Maidasani, (2010). *Straight To The Point - CorelDRAW X4*, Firewal Media.

Course Code 20UCCE52	PO1		PO2		PO3	PO4		PO5	PO6	PO7
	PSO	PSO	PSO	PSO	PSO	PSO	PSO	PSO	PSO	PSO
	1.a	1.b	2.a	2.b	3	4.a	4.b	5	6	7
CO1	H	H	H	H	-	-	-	-	-	-
CO2	H	H	H	H	-	-	-	-	-	-
CO3	H	H	H	H	-	-	-	L	-	L
CO4	H	H	H	H	M	M	M	-	-	-
CO5	H	H	H	H	M	M	M	M	-	-

Dr.A.Rama
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VIRUDHUNAGAR - 626 001

B.Com. (Computer Applications)

(2020 – 21 onwards)

Semester V	R PROGRAMMING	Hours/Week: 5	
Discipline Specific		Credits: 3	
Elective Course		Internal	External
Course Code 20UCCE53		25	75

COURSE OUTCOMES

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

CO1: describe the basic concepts of R programming. [K1]

CO2: discuss data types, operators, control structures and basics of R programming. [K2]

CO3: apply various programming concepts in R programming with ethical guidelines. [K3]

CO4: analyse the use of R in various simple applications. [K4]

CO5: validate the excel file operations and spot problems in data with visualization. [K5]

UNIT I

Introduction to R: What is R? – Why R? – Advantages of R over Other Programming Languages - R Studio: R command Prompt, R script file, comments – Handling Packages in R: Installing a R Package.

R Data Types: Vectors, Lists, Matrices, Arrays, Factors, Data Frame.

R - Variables: Variable assignment, Data types of Variable, Finding Variable ls(), Deleting Variables - Ethical principles to be followed in R programming. (15 Hours)

UNIT II

R Operators: Arithmetic Operators, Relational Operators, Logical Operator, Assignment Operators, Miscellaneous Operators - R Decision Making: if statement, if – else statement, if – else if statement, switch statement – R Loops: repeat loop, while loop, for loop - Loop control statement: break statement, next statement. (15 Hours)

UNIT III

R-Function : function definition, Built in functions: mean(), paste(), sum(), min(),

max(), seq(), user-defined function, calling a function, calling a function without an argument, calling a function with argument values - R-Strings – Manipulating Text in Data: substr(), strsplit(), paste(), grep(), toupper(), tolower() - R Vectors – Sequence vector, rep function, vector access, vector names, vector element sorting - R List - Creating a List, List Tags and Values, Add/Delete Element to or from a List - R Matrices – Accessing Elements of a Matrix, Matrix Computations: Addition, subtraction - R Arrays: Naming Columns and Rows, Accessing Array Elements, Manipulating Array Elements.

(15 Hours)

UNIT IV

Data Frames –Create Data Frame, Data Frame Access, Understanding Data in Data Frames: dim(), nrow(), ncol(), str(), head(), tail() functions - Extract Data from Data Frame,

Expand Data Frame: Add Column, Add Row - Joining columns and rows in a Data frame rbind() and cbind().

Loading and handling Data in R: Getting and Setting the Working Directory – getwd(), setwd(), dir() - R-CSV Files - Input as a CSV file, Reading a CSV File - Writing into a CSV File. (15 Hours)

UNIT V

Descriptive Statistics: Data Range, Frequencies, Mode, Mean and Median: Mean Applying Trim Option, Applying NA Option, Median - Mode - R –Pie Charts: Pie Chart title and Colors – Slice Percentages and Chart Legend, 3D Pie Chart – R Histograms – Density Plot - R – Bar Charts: Bar Chart Labels, Title and Colors. (15 Hours)

SELF STUDY FOR ASSIGNMENT

1. Read and write Excel file
2. Spot Problems in Data with Visualization

TEXT BOOK

1. Seema Acharya, (2018). *Data Analytics using R*, India: McGraw Hill Education. (UNIT I)
2. Sandip Rakshit, (2017). *R Programming for Beginners*, India: McGraw Hill Education. (UNIT II-UNIT V)

REFERENCE BOOKS

1. Tilman M.Davies,(2016). The Book of R, San Francisco: No Starch Press
2. Jared P. Lander, (2014).R for Every One advanced Analytics and Graphics, India: Pearson Education.
3. Tutorials Point (I) simply easy learning, Online Tutorial Library, (2018). *R Programming*, Retrieved from https://www.tutorialspoint.com/r/r_tutorial.pdf.

Course Code 20UCCE53	PO1		PO2		PO3	PO4		PO5	PO6	PO7
	PSO	PSO	PSO	PSO	PSO	PSO	PSO	PSO	PSO	PSO
	1.a	1.b	2.a	2.b	3	4.a	4.b	5	6	7
CO1	H	H	H	H	-	-	-	-	-	-
CO2	H	H	H	H	-	-	-	-	-	-
CO3	H	H	H	H	-	-	-	L	-	L
CO4	H	H	H	H	M	M	M	-	-	-
CO5	H	H	H	H	M	M	M	M	-	-

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VIRUDHUNAGAR - 626 001

B.Com. (Computer Applications)
(2020 – 21 onwards)

Semester V	WEB TECHNOLOGY LAB	Hours/Week: 5	
Discipline Specific Elective Course		Credits: 3	
Course Code 20UCCE51P		Internal 40	External 60

COURSE OUTCOMES

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

- CO1: write the basic structure of HTML program. [K3]
- CO2: describe specific features including forms, tables and various tags. [K3]
- CO3: enter the codings to execute the program. [K3]
- CO4: run the program and explain the output of the program. [K3]
- CO5: justify the answer for viva voce questions. [K4]

LIST OF PRACTICAL

1. Create a web page using HTML tags with various format options.
2. Create a webpage and insert an image with width 300 and height 300 and write a small paragraph on that image.
3. Create a HTML document for your business organization consisting of Departments and its employees such as Marketing, Production and Finance Department using Ordered List, Unordered List, and Definition list.
4. Create a HTML document which implements Internal linking to local file of your company and external linking to any search website.
5. Design a Mark statement using table.
6. Design a student details using HTML tags in table format.
7. Design a employee details using HTML tags in table format.
8. Create Personal Profile Using HTML Tags.

9. Design a frameset using HTML tags.
10. Design a website front page.
11. Create an Input Form using HTML to be entered by prospective employees during recruitment process having:
 - a. Text Box
 - b. Rich text box
 - c. radio buttons
 - d. Check boxes
 - e. Select button
 - f. Reset and Submit buttons
12. Design a HTML document having nested frames.
13. Create your own style sheets and use them in your web page.
14. Design an HTML5 page with the title “Simple CSS”. The body of the page should contain a single paragraph with the text “Hello”. The text should have the “color” property set to “green”. An internal style sheet should be used to define an appropriate style that can be applied to the paragraph.
15. Design an HTML page with an appropriate paragraph describing your business not exceeding 20 words. An external style sheet named “mystyle.css” should be used to define an appropriate style to the paragraph that makes all the text in paragraph converted to uppercase and to apply an image as page background. Insert this sheet to the HTML page to apply the defined styles.

Course Code 20UCCE51P	PO1		PO2		PO3	PO4		PO5	PO6	PO7
	PSO 1.a	PSO 1.b	PSO 2.a	PSO 2.b	PSO 3	PSO 4.a	PSO 4.b	PSO 5	PSO 6	PSO 7
CO1	H	H	L	–	–	–	–	L	–	–
CO2	H	H	–	–	–	–	–	L	–	–
CO3	H	H	–	–	–	–	–	M	–	–
CO4	H	H	–	–	–	–	–	M	M	–
CO5	H	H	L	–	–	–	–	M	M	–

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B.Com. (Computer Applications)

(2020 – 21 onwards)

Semester V	VECTOR GRAPHICS LAB	Hours/Week: 5	
Discipline Specific Elective Course		Credits: 3	
Course Code 20UCCE52P		Internal 40	External 60

COURSE OUTCOMES

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

CO1: write the basic steps to design cards, Banner and Logo using CorelDraw. [K3]

CO2: present the specific steps for the required lab practical in CorelDraw. [K3]

CO3: apply the procedure to design cards, Banners and Logo. [K3]

CO4: display and explain the creation. [K3]

CO5: justify the answer for viva voce questions. [K4]

LIST OF PRACTICAL

1. Text Designing (Special Effects).
2. A design using Polygon Tool
3. A design using Transform & Rotation
4. Drawing a Chess board using Graph Paper Tool
5. Designing a Greeting Card.
6. Designing a Fish Tank
7. Logo Design (VVV).
8. Designing our National Flag.
9. Designing a Visiting Card.
10. Designing Wedding Invitation
11. Designing a book cover
12. Designing a Magazine cover
13. Designing a Banner

14. Brochure designing
15. Pamphlet designing
16. Hotel menu card designing
17. Calendar designing
18. Product packaging design
19. Designing a certificate using Canva
20. Designing a flyer using Canva

Course Code	PO1		PO2		PO3	PO4		PO5	PO6	PO7
	PSO 1.a	PSO 1.b	PSO 2.a	PSO 2.b	PSO 3	PSO 4.a	PSO 4.b	PSO 5	PSO 6	PSO 7
CO1	H	H	L	–	–	–	–	L	–	–
CO2	H	H	–	–	–	–	–	L	–	–
CO3	H	H	–	–	–	–	–	M	–	–
CO4	H	H	–	–	–	–	–	M	M	–
CO5	H	H	L	–	–	–	–	M	M	–

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(2020 – 21 onwards)

Semester V	R PROGRAMMING LAB	Hours/Week: 5	
Discipline Specific Elective Course		Credits: 3	
Course Code 20UCCE53P		Internal 40	External 60

COURSE OUTCOMES

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

- CO1: write the basic structure of R program. [K3]
- CO2: describe specific features including data types, operators, control structures, array, string and functions. [K3]
- CO3: enter the codings to execute the R program. [K3]
- CO4: run the program and explain the output of the R program. [K3]
- CO5: justify the answer for viva voce questions. [K4]

LIST OF PRACTICAL

1. Print a message.
2. Sum of numbers from 1 to n.
3. Leap year checking.
4. Sum of natural numbers.
5. Multiplication table.
6. Return the largest element in a list (Using Function).
7. Compute the running total of a list (Using Function).
8. String palindrome.
9. Arithmetic operation.
10. String manipulation.
11. Import CSV file to R console.
12. Import from R console to CSV file.

13. Sort an array.
14. Display a line graph using student details to perform R console to CSV file.
15. Display a pie chart using employee details to accessing CSV file to R console.
16. Display a bar chart using hostel details to perform R console to CSV file.
17. Display a pie chart using sample population for the village to perform R console to CSV file.

Course Code 20UCCE53P	PO1		PO2		PO3	PO4		PO5	PO6	PO7
	PSO 1.a	PSO 1.b	PSO 2.a	PSO 2.b	PSO 3	PSO 4.a	PSO 4.b	PSO 5	PSO 6	PSO 7
CO1	H	H	L	–	–	–	–	L	–	–
CO2	H	H	–	–	–	–	–	L	–	–
CO3	H	H	–	–	–	–	–	M	–	–
CO4	H	H	–	–	–	–	–	M	M	–
CO5	H	H	L	–	–	–	–	M	M	–

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B.Com. (Computer Applications)

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Semester V	PROJECT	Hours/Week: 0
Extra Credit Course		Credits: 2
Course Code 20UCO05PR		Internal 100

COURSE OUTCOMES

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

- CO1: apply the general basic concepts related to research in their project.
- CO2: apply the specific methodologies, principles and ethics of social values in their project.
- CO3: collect, edit and classify the data in accordance with their objectives.
- CO4: analyse the data and present the findings related to their project.
- CO5: justify the answer for viva voce questions.

The students can undertake project in any of the specific areas related to social values, women empowerment and consumer behavior. They can choose topics related to:

- 1) Mass Media and Youth
- 2) Spirituality, Superstition and Legends
- 3) Joint Family Culture
- 4) Patriotism
- 5) Obesity and Food
- 6) Youth and Education
- 7) Gender Equality
- 8) Women in the Workplace
- 9) Women's Rights
- 10) Taxes and Wages/Salaries/ Income
- 11) Consumer Behaviour
- 12) Art and Culture

13) Depression and Stress

14) Attitude of Youth

15) Presentation of Women (Men / Children / Celebrities / Differently Abled Persons / Professionals) in Media.

Guidelines / Regulations for the project: (Extra Credit Course)

- Every student must undertake an individual project.
- For each project there must be one teacher-guide.
- The title of the project must be relevant to the course.
- The report must have three chapters including introduction and Summing up.
- The project must have 20 – 30 pages typed neatly in MS word (Font Size 12, Times New Roman, 1.5 point spacing)
- The report must be prepared as per the APA format(7th edition)
- Three copies must be submitted to the department in the month of November.
- Evaluation:

Internal Assessment Only

Project Work/Report : 60 Marks

Presentation & Vivavoce : 40 Marks

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B.Com. (Computer Application) (2020–21 onwards)

Semester VI	MANAGEMENT ACCOUNTING	Hours/Week: 6	
Core Course		Credits: 5	
Course Code 20UCOC61		Internal 25	External 75

COURSE OUTCOMES

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

CO1: state the concepts related to management accounting; describe the differences between management accounting and financial accounting. [K1]

CO2: explain the procedure relating to the analysis and interpretation of financial statements, marginal cost and budget. [K2]

CO3: calculate various ratios and funds/cash from operations, estimate working capital and prepare budgets. [K3]

CO4: analyse the available information for the purpose of managerial decision making. [K4]

CO5: evaluate the ethics in management accounting and the situations for financial statement analysis. [K5]

UNIT I

Management Accounting: Meaning – Nature – Scope – Objectives – Advantages and Limitations – Difference between Management Accounting and Financial Accounting.

Ratio Analysis: Meaning – Interpretation – Solvency Ratios – Profitability Ratios – Activity Ratios – Earnings Ratios – Turnover Ratios – Advantages – Limitations of Ratio Analysis. (20 Hours)

UNIT II

Funds Flow Statements and Cash Flow Statements: Importance – Statement of Changes in Working Capital – Funds from Operations – Funds Flow Statement – Managerial Uses – Cash from Operations – Cash Flow Statement as per AS 3. (18 Hours)

UNIT III

Working Capital: Meaning – Need – Factors Determining Working Capital – Operating Cycle – Sources of Working Capital – Estimation of Working Capital. (12 Hours)

UNIT IV

Marginal Costing : Marginal Cost – Marginal Costing – P/V Ratio – Break–Even Analysis – Application of Marginal Costing Techniques – Fixation of Selling Price, Make or Buy Decision, Accepting an Additional Order, Key Factor and Selection of a Suitable Product Mix. (20 Hours)

UNIT V

Budget and Budgetary Control : Meaning – Objectives – Characteristics – Essentials of a Successful Budgetary control – Preparation of Sales Budget – Production Budget – Material Purchase Budget – Cash Budget – Flexible Budget – Advantages – Limitations. (20 Hours)

SELF STUDY FOR ASSIGNMENT

1. Ethics in Management Accounting
2. Common Size Statements

NOTE:

Composition of the Question Paper: Theory : 25 %
Problems : 75 %

TEXT BOOK

Ramachandran, R., & Srinivasan R.,(2013). *Management Accounting*, Trichy: Sriram Publications, 15th Enlarged Edition.

REFERENCE BOOKS

1. Pandey, I.M., (2008). *Management Accounting*, New Delhi: Vikas Publications Private Ltd., 3rd Revised Edition.
2. Maheswari, S.N.,(2009). *Accounting for Management*, New Delhi: Sultan Chand & Sons, Second Edition.

Course Code 20UCOC61	PO1		PO2		PO3	PO4		PO 5	PO 6	PO 7
	PSO 1.a	PSO 1.b	PSO 2.a	PSO 2.b	PSO 3	PSO 4.a	PSO 4.b	PSO 5	PSO 6	PSO 7
CO1	H	H	H	-	-	-	-	-	-	-
CO2	H	H	H	-	-	-	-	-	-	-
CO3	H	H	M	H	H	H	-	-	-	-
CO4	H	H	H	H	H	H	-	-	-	-
CO5	M	M	L	-	-	-	L	L	L	H

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B.Com. (Computer Applications)

(2020-21 onwards)

Semester VI	INCOME TAX LAW & PRACTICE - II	Hours/Week: 6	
Core Course		Credits: 5	
Course Code 20UCOC62		Internal 25	External 75

COURSE OUTCOMES

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

- CO1: describe the basic concepts and procedures related to income tax assessment and income tax authorities. [K1]
- CO2: explain the provisions related to income tax assessment, powers and duties of income tax authorities and e-filing under Income Tax Act. [K2]
- CO3: calculate the taxable incomes of Individual, HUF, Firms and AOP. [K3]
- CO4: analyse the provisions and procedures for tax assessment under the various circumstances. [K4]
- CO5: distinguish the deductions under Section 80 IA to 80 U with special reference to Minimum Alternate Tax for companies. [K5]

UNIT I

Clubbing of Income : Income of other Persons Included in the Assessee's Total Income

Set-off and Carry Forward of losses: Set-off under the Same Head – Set-off Against Income under Other Heads – Carry Forward and Set-off of Losses.

Deductions in Computing Total Income: Deductions in respect of Certain Payments (Under Section 80C to 80GGC). (18 Hours)

UNIT II

Assessment of Individuals: Computation of Total Income and Tax Liability of Individuals.

Assessment of Hindu Undivided Families: Computation of Total Income and Tax Liability of Hindu Undivided Families. (18 Hours)

UNIT III

Assessment of Firms: Computation of Book Profit, Business Income, Total Income and Tax Liability of the Firm – Computation of Taxable Income of Partners under the Head Business or Profession and Total Income of Partners

Assessment of AOPs / BOIs: Computation of Total Income of AOP/ BOI – Computation of Share of a Member. (18 Hours)

UNIT IV

Income Tax Authorities: Jurisdiction of Income Tax Authorities – Powers of Income tax Authorities.

Procedure for Assessment: Provisions Regarding filing of Income Tax Return, Prescribed Forms of Return of Income, Signing of Return, e-Filing of Return of Income and Permanent Account Number – Types of Assessment. (18 Hours)

UNIT V

Collection of Tax: Deduction of Tax at Source – Collection of Tax at Source – Advance Payment of Tax – Recovery and Refund of Tax

Consequences of Default: Appeals and Revisions – Penalties, Offences and Prosecution (Theory only). (18 Hours)

SELF STUDY FOR ASSIGNMENT

1. Deductions in respect of certain income (Section 80 IA to 80 U)
2. Deductions eligible to a Company Assessee and provisions regarding Minimum Alternate Tax.

NOTE:

Composition of the Question Paper: Theory : 50%
Problems : 50%

TEXT BOOK

Mehrotra, H.C., & Goyal. (Current Assessment Year). *Income Tax Law and Accounts*. New Delhi: Sahitya Bhawan Publishers.

REFERENCE BOOKS

1. Vinod, Singhanian, K. (Current Assessment Year). *Students Guide to Income Tax*. New Delhi: Taxmann Publications Private Ltd.
2. Gaur, V.P., & Narang, D.B. (Current Assessment Year). *Income Tax Law and Practice*. New Delhi: Kalyani Publishers.

Course Code 20UCOC62	PO1		PO2	PO3		PO4	PO5	PO6		PO7
	PSO 1.a	PSO 1.b	PSO 2.a	PSO 2.b	PSO 3	PSO 4.a	PSO 4.b	PSO 5	PSO 6	PSO 7
CO1	H	H	H	H	-	-	-	-	-	-
CO2	H	H	H	H	-	-	-	-	-	-
CO3	H	H	H	H	-	-	-	L	-	M
CO4	H	H	H	H	M	M	M	-	-	-
CO5	H	H	H	H	M	M	M	M	L	-

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Semester VI	BUSINESS LEGISLATIONS – II	Hours/Week: 6	
Core Course		Credits: 4	
Course Code 20UCOC63		Internal 25	External 75

COURSE OUTCOMES

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

- CO1: state the basic provisions of Limited Liability Partnership, Consumer Protection Act, Information Technology Act, Right to Information Act, Essential Commodities Act and the Competition Act. [K1]
- CO2: explain the provisions of Limited Liability Partnership, Consumer Protection Act, Information Technology Act, Right to Information Act, Essential Commodities Act and The Competition Act in case of specific procedures. [K2]
- CO3: apply the provisions of prescribed business legislations for a given situation. [K3]
- CO4: analyse various cases where the provisions of prescribed business legislations are applicable. [K4]
- CO5: summarise the case proceedings under Essential Commodities Act and The Competition Act. [K5]

UNIT I

Essential Commodities Act 1955: Definition – Objectives – Power to control Supply, Production and Distribution – Penalties for violation – Latest Amendments in Essential Commodities Act.

The Competition Act, 2002: Definition – Prohibition of certain Agreements, Abuse of Dominant Position and Regulation of Combinations – Prohibition of Abuse of Dominant Position – Combinations – Competition Commission of India – Duties, Powers and Functions of Commission. (18 Hours)

UNIT II

Limited Liability Partnership: Limited Liability Partnership and salient features of Limited Liability Partnership – Nature of Limited Liability Partnership – Partners, Designated partners, Liabilities, changes in Parties – Partners and their relations – First Schedule – Extent and Limitation of Liability of Limited Liability Partnership and Partners – Contributions – Financial Disclosures – Assignment and Transfer of Partnership Rights – Investigation – Conversion to Limited Liability Partnership – The Second Schedule – The Third Schedule. (18 Hours)

UNIT III

The Consumer Protection Act, 2019: Definitions – Consumer Protection Councils – Central Consumer Protection Authority – Consumer Disputes Redressal Commission – District Commission, State Commission, National Commission – Mediation – Product Liability – Offences and Penalties. (18 Hours)

UNIT IV

Information Technology Act, 2000: Definition – Digital Signature – Electronic Governance – Electronic Records – Duties of Subscribers – Penalties and Adjudication – The Cyber Regulations Appellate Tribunal – Offences. (18 Hours)

UNIT V

Right to Information Act, 2005: Definitions – Right to Information and obligations of Public Authorities – The Central Information Commission – The State Information Commission – Powers and Functions of the Information Commissions – Appeal and Penalties. (18 Hours)

SELF STUDY FOR ASSIGNMENT

1. Case Laws relating to Essential Commodities Act.
2. Case Laws relating to The Competition Act.

TEXT BOOK

Kapoor, N.D., (2021). *Elements of Mercantile Law*, New Delhi: Sultan Chand & Sons, Thirty Eighth Revised Edition.

REFERENCE BOOKS

1. Gogna, P.P.S., (2014). *A Text book of Mercantile Law*, New Delhi: S.Chand & Company Ltd.,
2. Pillai,R.S.N., & Bagavathi, (2007). *Business Law*, New Delhi: S.Chand & Company Ltd.,
3. Shukla, M.C., (2017). *Mercantile Law*, New Delhi: S,Chand & Company Ltd., Bare Acts.

Course Code 20UCOC63	PO1		PO2		PO3	PO4		PO5	PO6	PO7
	PSO 1.a	PSO 1.b	PSO 2.a	PSO 2.b	PSO 3	PSO 4.a	PSO 4.b	PSO 5	PSO 6	PSO 7
CO1	H	H	H	H	-	-	-	-	-	-
CO2	H	H	H	H	-	-	-	-	-	-
CO3	H	H	H	H	-	-	-	L	-	M
CO4	H	H	H	H	M	-	-	-	-	-
CO5	H	H	H	H	M	M	M	M		-

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Semester VI	TALLY.ERP 9 WITH GST	Hours/Week: 5	
Discipline Specific Elective Course		Credits: 3	
Course Code 20UCCE61		Internal 25	External 75

COURSE OUTCOMES

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

CO1: describe the concepts in GST and Tally.ERP 9. [K1]

CO2: explain the types of GST, steps involved in company creation, report generation and entering the details in Tally. ERP9. [K2]

CO3: calculate GST using Tally. ERP9 and generate the different types of ledgers vouchers and reports following the ethical principles. [K3]

CO4: analyse the given circumstances while generating ledgers vouchers and reports. [K4]

CO5: adapt online GST registration and work out problems related to inventory voucher and reorder level. [K5]

UNIT I

Introduction to GST -Concept – Meaning – Definition – Objectives – Advantages-Impact of GST-Types of GST: CGST – SGST – IGST-UTGST – GST Slab Rate for Goods and Services – GST Invoice – HSN Code – SAC – GST Number Format - Supply of Goods and / or Services - Time, Value and Place of Supply - Input Tax Credit against GST Liability - GST Input Tax Credit - Payment of Tax. (15 Hours)

UNIT II

Introduction to Tally.ERP 9: Features of Tally.ERP 9 – Screen Component – Starting Tally.ERP 9 - Quitting Tally.ERP 9 - **Company Info:** Create, Select, Alter and Close

or Shut Company – Activate GST in Tally.ERP 9 –**Ledger:** Creation, Displaying, Altering and Deleting - F11 – Features and F12 – Configuration. (15 Hours)

UNIT III

Managing Groups and Vouchers: Introduction to Groups- Classification of Account Heads- Single Group and Multiple Groups:Displaying -Altering - Deleting.**Introduction to Vouchers:**Voucher Creation - Receipt, Payment, Contra, Journal, Sales, Purchase,Debit Note and Credit Note- Display- Alter- Delete -**Stock Group:**Creation - Stock Items –Unit of Measure. (15 Hours)

UNIT IV

Purchase Voucher with GST:Updating GST Number for Suppliers - Purchase Entry in GST. **Sales Voucher with GST** - Updating GST Number for Suppliers - Sales Entry in GST - Printing GST Sales Invoice from Tally.ERP9 Software – Calculation of Inter-state Purchase and Sales – Calculation of Intra-State Purchases and Sales. (15 Hours)

UNIT V

Statements and Report Generation: Day Book, Cash Book, Purchase Register, Sales Register, Stock Summary, Cash Flow, Fund Flow, Trial Balance, Profit and Loss Account, Balance Sheet – Backup – Restore – General Ethical Principles. (15 Hours)

SELF STUDY FOR ASSIGNMENT

1. Online GST Registration
2. Inventory Voucher and Reorder Level

TEXT BOOK

Study Material Prepared by the Course Teachers.

REFERENCE BOOKS

1. Soumya Ranjan Behera, *Learn Tally.ERP9 with GST*, Odisha: B.K.Publications Private Limited ,3rd Edition. (Unit -I to III, V)
2. Mehrotra H.C & Agarwal V.P, *Goods and Service Tax (G.S.T.)*, Uttar Pradesh:Sahitya Bhawan Publications , 4th Edition. (Unit - IV)

Course Code 20UCCE61	PO1		PO2		PO3	PO4		PO5	PO6	PO7
	PSO 1.a	PSO 1.b	PSO 2.a	PSO 2.b	PSO 3	PSO 4.a	PSO 4.b	PSO 5	PSO 6	PSO 7
	CO1	H	H	H	H	-	-	-	-	-
CO2	H	H	H	H	-	-	-	-	-	-
CO3	H	H	H	H	-	-	-	L	-	L
CO4	H	H	H	H	M	M	M	-	-	-
CO5	H	H	H	H	M	M	M	M	-	-

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B.Com. (Computer Applications)

(2020 – 21 onwards)

Semester VI	PHP & MYSQL	Hours/Week: 5	
Discipline Specific Elective Course		Credits: 3	
Course Code 20UCCE62		Internal 25	External 75

COURSE OUTCOMES

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

CO1: describe the basic concepts of PHP and MySQL. [K1]

CO2: explain PHP language data types, logic controls, built-in and user-defined functions and basics of PHP and MySQL. [K2]

CO3: apply PHP and MySQL concepts in programming with integrities. [K3]

CO4: analyse the use of PHP and MySQL in simple applications. [K4]

CO5: validate the deletion mechanism and adding sub-entities to a record for online address book and various sessions in an environment with registered users. [K5]

UNIT I

Building blocks of PHP: Variables, Data Types, Operators and Expressions, Constants.

Flow Control Functions in PHP: Switching Flow, Loops, Code Blocks and Browser Output.

Working with Functions: Defining Functions, Calling functions, returning the values from User – Defined Functions, Variable Scope, Saving State between Function calls with the Static statement, more about arguments – Ethical principles to be followed in PHP and MySQL. (15 Hours)

UNIT II

Working with Arrays: Arrays, Creating Arrays, Array – Related Functions.

Working with Objects: Creating Objects, Object Instance.

Working with Strings, Dates and Time: Formatting Strings with PHP, Investigating Strings with PHP, Manipulating Strings with PHP, Using Date and Time Functions in PHP.
(12 Hours)

UNIT III

Working with Forms: Creating Forms, Accessing Form – Input with User defined Arrays, Combining HTML and PHP code on a single Page, Using Hidden Fields to save state, Redirecting the user, Sending Mail on Form Submission, Working with File Uploads.

Working with Cookies and User Sessions: Introducing Cookies, Setting a Cookie with PHP, Session Function Overview, Starting a Session, Working with session variables, passing session IDs in the Query String, Destroying Sessions and Unsetting Variables.
(15 Hours)

UNIT IV

Working with Files and Directories: Including Files with include(), Validating Files, Creating and Deleting Files, Opening a File for Writing, Reading or Appending, Reading from Files, Writing or Appending to a File, Working with Directories, Open Pipes to and from Process Using popen (), Running Commands with exec(), Running Commands with system () or passthru ().

Working with Images: Understanding the Image – Creation Process, Necessary Modifications to PHP, Drawing a New Image, Getting Fancy with Pie Charts, Modifying Existing Images, Image Creation from User Input.
(16 Hours)

UNIT V

Learning Basic SQL Commands: Learning the MySQL data types – Learning the Table creation Syntax – Using the Insert Command-Using the Select Command – Using WHERE in Your Queries – Selecting from Multiple Tables – Using the UPDATE Command to Modify Records – Using the REPLACE Command – Using the DELETE Command – Frequently Used String Functions in MySQL– Using Date and Time Functions in MySQL

Interacting with MySQL using PHP: Connecting to MySQL with PHP, Working with MySQL Data.

Creating an Online Address Book: Planning and Creating Database Tables, Creating Menu, Creating Record Addition Mechanism, Viewing Records, Creating the Record. (17 Hours)

SELF STUDY FOR ASSIGNMENT

1. Deletion Mechanism and Adding Sub-entities to a Record for online address book.
2. Use Sessions in an Environment with Registered Users.

TEXT BOOK

Julie C. Meloni,(2012). *SAMS Teach Yourself PHP,MySQL and Apache*, Pearson Education.

REFERENCE BOOK

1. Xue Bai, Michael Ekedahl & Joyce Farrell, (2006). *The Web Warrior Guide to Web Programming*, Cengage Learning India Pvt Ltd.,
2. Steven Holzner, *The Complete Reference PHP*, Tata McGraw Hill publication private Ltd.
3. https://www.youtube.com/watch?v=_t9iLQXgQhk&feature=emb_logo.

Course Code	PO1		PO2		PO3	PO4		PO5	PO6	PO7
	PSO 1.a	PSO 1.b	PSO 2.a	PSO 2.b	PSO 3	PSO 4.a	PSO 4.b	PSO 5	PSO 6	PSO 7
20UCCE62										
CO1	H	H	H	H	-	-	-	-	-	-
CO2	H	H	H	H	-	-	-	-	-	-
CO3	H	H	H	H	-	-	-	L	-	L
CO4	H	H	H	H	M	M	M	-	-	-
CO5	H	H	H	H	M	M	M	M	-	-

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VIRUDHUNAGAR - 626 001

B.Com. (Computer Applications)

(2020 – 21 onwards)

Semester VI	VB.NET	Hours/Week: 5	
Discipline Specific Elective Course		Credits: 3	
Course Code 20UCCE63		Internal 25	External 75

COURSE OUTCOMES

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

CO1: describe the basic concepts of .Net and VB.Net. [K1]

CO2: explain IDE, data types, arrays, control flow statements and data base concept in VB.Net. [K2]

CO3: apply the concepts related to VB.Net in programming with integrities. [K3]

CO4: analyse the use of VB.Net in simple applications. [K4]

CO5: evaluate data using XML and exception handling. [K5]

UNIT I

Introduction: Introduction to .Net, .Net Architecture, Features of .Net, Advantages of .Net, .Net Base Class Library, Overview of .Net Framework, languages and the .NET Framework, The structure of a .NET Application, Compilation and Execution of a .NET Application, .Net Framework Class Library, VB.Net Enhancements – Ethical principles to be followed in VB.NET.

Introduction to Visual Basic.Net IDE: Creating a project, Types of project in .Net, Exploring and coding a project, Solution explorer, tool box, properties window, Output window, Object Browser. (15 Hours)

UNIT II

VB.Net Programming Language: Variables, Comments, Data Types, Working with Data Structures – Arrays, Array Lists, Enumerations, Constants, Structures;

Introduction to procedures & functions, calling procedures, argument passing mechanisms, scope of variable.

Control Flow Statements: Conditional statement, Loops, Nesting Loops.

(15 Hours)

UNIT III

GUI Programming: Introduction to Window Applications, Using Form – Common Controls, Properties, Methods and Events. Interacting with controls – Windows Form, Textbox, Rich Text Box, Label, Button, List box, Combo box, Check box, Picture box, Radio Button, Panel, Scroll Bar, Timer, List View, Tree View, Toolbar, Status Bar. Progress Bar, Date time Picker, Month Calender, Track Bar, Splitter, Link Label, Group Box, Tooltip, Menu strip, Check List Box.

(15 Hours)

UNIT IV

Dialog Controls: Page Setup Dialog, Print Dialog, Print Preview Dialog, Print Preview Control, Print Document, Open File Dialog, Save File Dialog.

Multiple Document Interface: Creating and Using MDI applications, Creating Dialog Box, Adding and removing Controls at runtime.

(15 Hours)

UNIT V

Working With Database: Data Access with ADO.net, The ODBC architecture, OLE DB, ActiveX Data Objects (ADO), ADO Object Model, Connection Object, Record set Object, ADO.NET Data Providers, Connected Data Access, Connecting to a SQL Server Data Provider : Using OLEDB Provider, Using Commands, Using Data Reader, Disconnected Data Sets, Data Adapters, Creating the Data Set manually.

(15 Hours)

SELF STUDY FOR ASSIGNMENT

1. Using XML Data
2. Exception Handling (using: Try-catch, Multiple catch, Finally, Resume next)

TEXT BOOK

Steven Holzner, (2005). *VisualBasic.Net Programming Black Book*, Dreamtech Press.

REFERENCE BOOKS

1. Neetu,Pabreja KavitaNarwal,(2017). *LearningVisualBasic.NetProgramming*, GalgotiaPublishingCompany.
2. JeremyShapiro,(2017).*VisualBasic(R).Net:TheCompleteReference*, McGrawHillEducation.

Course Code 20UCCE63	PO1		PO2		PO3	PO4		PO5	PO6	PO7
	PSO 1.a	PSO 1.b	PSO 2.a	PSO 2.b	PSO 3	PSO 4.a	PSO 4.b	PSO 5	PSO 6	PSO 7
CO1	H	H	H	H	-	-	-	-	-	-
CO2	H	H	H	H	-	-	-	-	-	-
CO3	H	H	H	H	-	-	-	L	-	L
CO4	H	H	H	H	M	M	M	-	-	-
CO5	H	H	H	H	M	M	M	M	-	-

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(2020 – 21 onwards)

Semester VI	PROJECT - TALLY.ERP 9 WITH GST	Hours/Week: 5	
Discipline Specific Elective Course		Credits: 3	
Course Code 20UCCE61PR		Internal 40	External 60

COURSE OUTCOMES

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

CO1: use the basic concepts and methodologies relating to project. [K3]

CO2: apply the specific terms and procedures relating to Tally.ERP 9 with GST in their project. [K3]

CO3: gather, edit and present the data for their project. [K3]

CO4: analyse the data and interpret the findings. [K4]

CO5: justify the findings and provide further suggestions. [K5]

The objective of the project is to train the learners to carry out the project related to VB.NET.

The project should be submitted before the date of Summative Examination.

Viva-Voce Exam will be conducted by the External Examiner on the project carried out by the learners.

Course Code	PO1		PO2		PO3	PO4		PO5	PO6	PO7
	PSO 1.a	PSO 1.b	PSO 2.a	PSO 2.b	PSO 3	PSO 4.a	PSO 4.b	PSO 5	PSO 6	PSO 7
20UCCE61PR										
CO1	H	H	M	M	-	-	-	-	-	L
CO2	H	H	M	M	L	L	L	-	-	L
CO3	H	H	M	M	M	L	L	L	L	-
CO4	H	H	M	M	H	M	M	H	-	-
CO5	H	H	M	M	L	L	L	H	-	L

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B.Com. (Computer Applications)

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Semester VI	PROJECT - PHP & MYSQL	Hours/Week: 5	
Discipline Specific		Credits: 3	
Elective Course		Internal	External
Course Code 20UCCE62PR		40	60

COURSE OUTCOMES

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

CO1: use the basic concepts and methodologies relating to project. [K3]

CO2: apply the specific terms and procedures relating to PHP & MYSQL
in their project. [K3]

CO3: gather, edit and present the data for their project. [K3]

CO4: analyse the data and interpret the findings. [K4]

CO5: justify the findings and provide further suggestions. [K5]

The objective of the project is to train the learners to carry out the project related to PHP and MySQL. The project should be submitted before the date of Summative Examination.

Viva-Voce Exam will be conducted by the External Examiner on the project carried out by the learners.

Course Code 20UCCE62PR	PO1		PO2		PO3	PO4		PO5	PO6	PO7
	PSO 1.a	PSO 1.b	PSO 2.a	PSO 2.b		PSO 3	PSO 4.a	PSO 4.b	PSO 5	PSO 6
CO1	H	H	M	M	-	-	-	-	-	L
CO2	H	H	M	M	L	L	L	-	-	L
CO3	H	H	M	M	M	L	L	L	L	-
CO4	H	H	M	M	H	M	M	H	-	-
CO5	H	H	M	M	L	L	L	H	-	L

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Semester VI	PROJECT - VB.NET	Hours/Week: 5	
Discipline Specific Elective Course		Credits: 3	
Course Code 20UCCE63PR		Internal 40	External 60

COURSE OUTCOMES

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

CO1: use the basic concepts and methodologies relating to project. [K3]

CO2: apply the specific terms and procedures relating to VB.NET
in their project. [K3]

CO3: gather, edit and present the data for their project. [K3]

CO4: analyse the data and interpret the findings. [K4]

CO5: justify the findings and provide further suggestions. [K5]

The objective of the project is to train the learners to carry out the project related to VB.NET.

The project should be submitted before the date of Summative Examination.

Viva-Voce Exam will be conducted by the External Examiner on the project carried out by the learners.

Course Code	PO1		PO2		PO3	PO4		PO5	PO6	PO7
20UCCE63PR	PSO 1.a	PSO 1.b	PSO 2.a	PSO 2.b	PSO 3	PSO 4.a	PSO 4.b	PSO 5	PSO 6	PSO 7
CO1	H	H	M	M	-	-	-	-	-	L
CO2	H	H	M	M	L	L	L	-	-	L
CO3	H	H	M	M	M	L	L	L	L	-
CO4	H	H	M	M	H	M	M	H	-	-
CO5	H	H	M	M	L	L	L	H	-	L

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(2020-21 onwards)

Semester VI	ENTREPRENEURIAL SKILL DEVELOPMENT	Hours/Week: 2	
Skill Enhancement Course		Credits: 2	
Course Code 20UCCS61		Internal 40	External 60

COURSE OUTCOMES

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

- CO1: describe the meaning, qualities, functions, basic concepts related to entrepreneurship development and entrepreneurial projects. [K1]
- CO2: explain the types, functions and importance of entrepreneurship and related institutions. [K2]
- CO3: apply the entrepreneurial functions to prepare projects, to start and to run a business with ethical principles. [K3]
- CO4: analyse the problems and prospects of women entrepreneurs for sustainable environment. [K4]
- CO5: evaluate the cases related to the entrepreneurship development. [K5]

UNIT I

Entrepreneurship: Definition –Nature and Characteristics of Entrepreneurship – Entrepreneur- Entrepreneur Vs Manager - Entrepreneur Vs Intrapreneur – Entrepreneurial Traits/ Qualities, ethics – Types of Entrepreneurs - Barriers to Entrepreneurship – Role of Entrepreneurship in Economic Development of a country.

(7 Hours)

UNIT II

Entrepreneurial Projects: Search for Business Idea – Sources of Ideas-Idea processing and Selection - Classification of Projects – Project Identification –Project Life

Cycle: Stages – Project Formulation: Elements – Project Selection : Criteria – Preparation of Project Report –Project Implementation. (7 Hours)

UNIT III

Institutional finance to Entrepreneurs: DIC - TIIC – SIDBI- SFC. (5 Hours)

UNIT IV

Incentives and Subsidies for Entrepreneurship Development: Institutions assisting Entrepreneurs – Need for Incentives – Incentives to Industries in Backward areas and SSI units- Seed Capital Assistance – MSMED Act- Initiatives under Tamilnadu Micro, Small and Medium Industries Policy.

(6 Hours)

UNIT V

Women Entrepreneurs: Growth and Development - Qualities – Problems and Remedial Measures.

(5 Hours)

SELF STUDY FOR ASSIGNMENT

1. Recent Trends in Women Entrepreneurship.
2. Preparation of Business Plan

TEXT BOOK

Gupta, C.B., & Srinivasan, N.P.,(2020). *Entrepreneurial Development*, New Delhi, Sultan Chand & Sons.

REFERENCE BOOKS

1. Rengarajan, L.,(2008) *Entrepreneurial Development*, Rajapalayam, Sree Renga Publications
2. Khanka, S.S., (2006) *Entrepreneurial Development*, New Delhi S.Chand & Company Ltd.,

Course Code 20UCCS61	PO1		PO2		PO3	PO4		PO5	PO6	PO7
	PSO 1.a	PSO 1.b	PSO 2.a	PSO 2.b	PSO 3	PSO 4.a	PSO 4.b	PSO 5	PSO 6	PSO 7
CO1	H	H	H	H	-	-	-	-	-	-
CO2	H	H	H	H	-	-	-	-	-	-
CO3	H	H	H	H	-	-	-	L	-	M
CO4	H	H	H	H	M	-	-	-	-	-
CO5	H	H	H	H	M	M	M	M	L	-

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