GOVERNMENT DEGREE COLLEGE-KANIGIRI

ప్రభుత్వ డిగ్రీ కళాశాల-కనిగిరి

DEPARTMENT OF HIGHER EDUCATION

COMMISSIONERATE OF COLLEGIATE EDUCATION

GOVERNMENT OF ANDHRA PRADESH

PRAKASAM DISTRICT, AP - 523230

Name Of The Record : DEPARTMENT'S PROFILE

Name Of The Lecturer : **D.Hari Narayana**

Name Of The Department : **Computer Applications**

GOVERNMENT DEGREE COLLEGE -KANIGIRI
DEPARTMENT OF COMPUTER APPLICATIONS

The Government Degree College , Kanigiri was established in 1983. In the beginning of the year College had Science and Arts, Later the college had only General B.Com and B.A groups. In the Year 2019 B.Com Computer application group started with 50 seats.

Year of establishment : 2019

S.NO	GROUP	INTAKE	MEDIUM	ELIGIBILITY CRITERIA
1	B.COM(Computer Applications)	50	EM	Intermediate (Any Course)

Vision :

- To produce Professionally Excellent , knowledgeable , Globally Competitive and socially responsible Graduates and Entrepreneurs.
- To Empower the rural youth by facilitating knowledge transfer and application ,providing them with better opportunities and transforming rural youth into intellectually competent , socially committed , environment conscious and responsible citizens with a holistic personality

Mission:

- The mission of the Computer Application department is to provide a complete environment to the students in theory and practical knowledge.
- The department fulfills its mission by pursuing excellence in teaching and learning in order to prepare students for successful career and life long education.

Objective :

The objective of the department is successfully teaching using current technology ,giving students hands-on experience . We renew their professional skills and knowledge based activities , updating curriculum based guidelines.

CURRICULUM ASPECTS

- Andhra Pradesh State Council of Higher Education (APSCHE) designs the Course structure and syllabus
- The affiliating University (Acharya Nagarjuna University,Guntur) approves and communicates the same to the college
- Formal feedback on curriculum from the stakeholders is taken regularly and the suggestions are communicated to the concerned BoS.
- As per BoS recommendations, Acharya Nagarjuna University changes the syllabus .
- Choice Based Credit System (CBCS) is implemented w.e.f AY: 2015 -16 Revised CBCS w.e.f. 2020-21.

CURRICULUM IMPLEMENTATION

- Academic Calendar is designed by Acharya Nagarjuna University,Guntur.

- At the beginning of the Academic year, Course wise Semester Curriculum Plans are prepared by faculty concerned.

- Academic committee monitors the Curriculum implementation.

CURRICULUM ENRICHMENT

Foundation Courses-SDCs & LSCs.

SEMESTERS SDCs LSCs

I Sem

Insurance Promotion Human Values andProfessional Ethics

II Sem

Business Communication

ICT(information and Communication Technology)

Logistic supply Chain management

III Sem

Retailing

Environmental Education

Analytical Skill

✓ Co-Curricular and Extra-Curricular activities are conducted.

SPECIAL FEATURES OF THE DEPARTMENT

- **SKILL DEVELOPMENT PROGRAMME**
- **WARD COUNSELLING**
- **USE OF SOCIAL MEDIA (WhatsApp Group)**
- **EXPERT LECTURES/ EXTENSION LECTURES**
- **ORGANIZING CO-CURRICULAR ACTIVITIES**

LEARNING RESOURCES

- **Digital Classroom - 01**
- **Computer Laboratory - 01**
- **Departmental Library - 01**
- **PC with Internet Connection in the Department-02**
- **Question Banks and Study Material**

Faculty Information

Name : Devarakonda Hari Narayana

Designation : Guest Lecturer

Department : Computer Applications

DoB : 30-08-1986

Date of Joining in the Service : 01-07-2022

Employee ID : 000000

Contact Information:

Devarakonda Hari Narayana,

Lecturer in Computer Applications,

Government Degree College,

Kanigiri, Prakasam Dist.

Andhra Pradesh - 523230.

Phone: 7306895815.

Email: devarakondahari86@gmail.com

DEPARTMENT OF COMPUTER APPLICATIONS

1. Name of the Department :Computer Applications

2. Year of Establishment :2019

3. Name of the courses offered :Under Graduation

4. Annual / semester system / Choice Based Credit System :Semester/CBCS

5. Participation of the department in the courses offered by other departments

: B.Com(C.A)

6. Courses in collaboration with Universities and colleges :Nil

7. Number of teaching posts :01

Name of the Post	Sanctioned	Filled
Lecturer in Computer applications	01	01

8. Faculty Profile with Name, Designation and Qualification/Specialization/Experience:

Name	Qualifications	Designation	Specialization	Joining in Service
D.Hari Narayana	MCA	Guest Lecturer	Computer Applications	01-07-2022

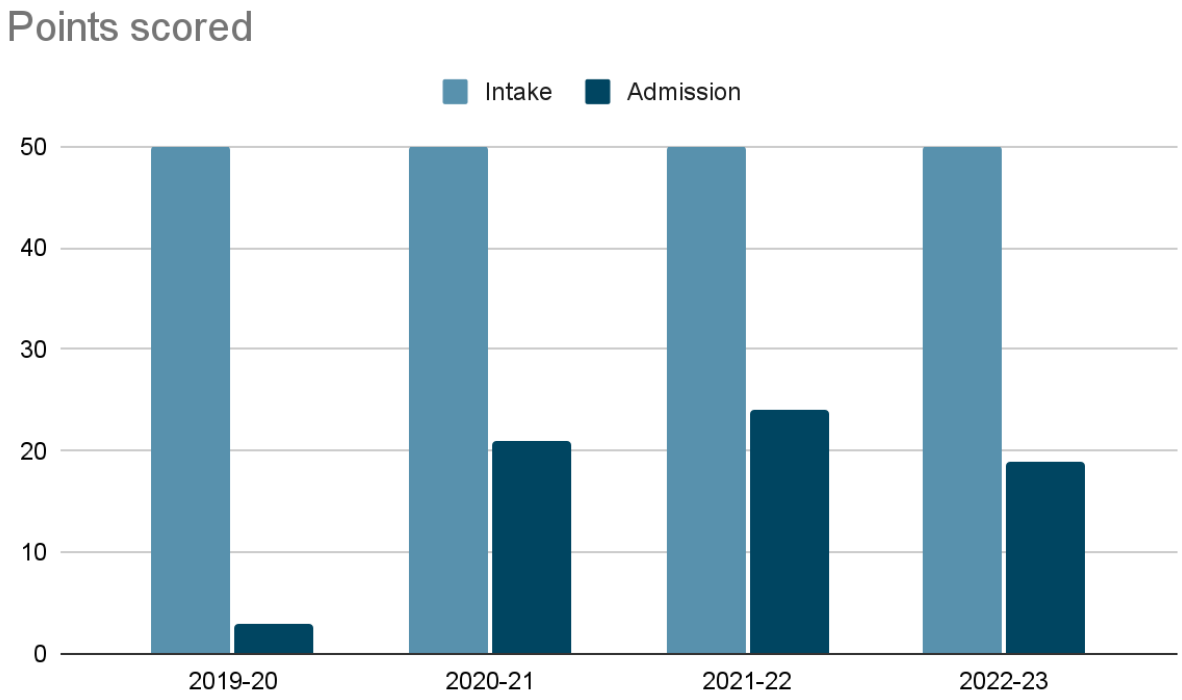
9. Research and Publications of the Faculty : Nil

10. Diversity of the Students:

Name of the Course	Percentage of Students from(in %)		
	Same district	Other Districts	Other States
B.Com(C.A)	100	00	00

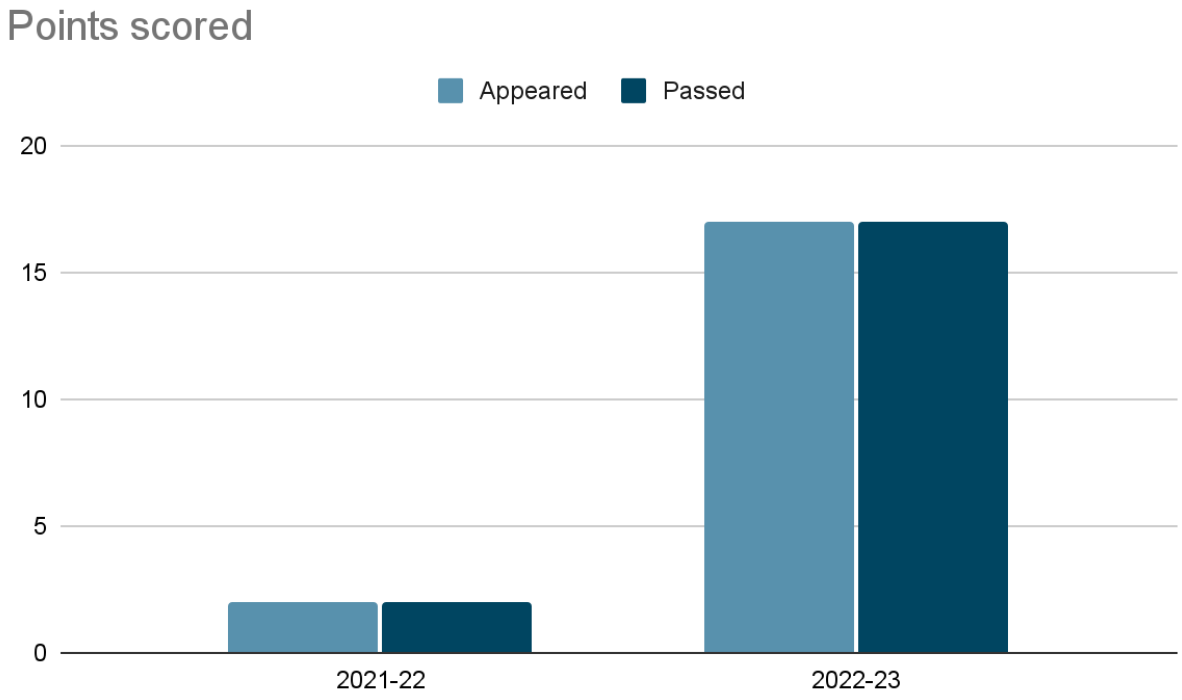
11. Student Enrolled/Course Wise:

Course	Year	Students intake	Admissions
B.Com(C.A)	2019-20	50	3
B.Com(C.A)	2020-21	50	21
B.Com(C.A)	2021-22	50	24
B.Com(C.A)	2022-23	50	19



Result analysis

RESULT ANALYSIS				
S.NO	Academic Year	Appeared	Passed	Percentage
1	2021-22	2	2	100
2	2022-23	17	17	100



ప్రభుత్వ డిగ్రీ కళాశాల-కనిగిరి

GOVERNMENT DEGREE COLLEGE-KANIGIRI

PRAKASAM DISTRICT, AP - 523230

DEPARTMENT OF COMPUTER APPLICATIONS

ACADEMIC YEAR: 2022-23

SEMESTER-WISE TIME TABLE

D.HARI NARAYANA

LECTURER IN COMPUTERS

GOVERNMENT DEGREE COLLEGE-KANIGIRI

PRAKASAM DISTRICT, ANDHRA PRADESH - 523230

Faculty wise individual Time Table 2022-23

B.com(Res) ,SEMESTER-I,III,V

NAME OF THE FACULTY : D.HARI NARAYANA

PERIODS	1	2	3	4	LUNCH BREAK (1.20 PM TO 2.20 PM)	5	6	7
TIME	10.00 AM	10.50AM	11.40M	12.30 PM		2.20 PM	3.10 PM	4.00 PM
TO	10.50AM	11.40PM	12.30 PM	1.20PM		3.10 PM	4.00 PM	5.00 PM
MONDAY	I-BCOM	-=-	-=-	II-BCOM		-=-	-=-	II-BCOM
TUESDAY	I-BCOM	-=-	-=-	II-BCOM		-=-	-=-	I-BCOM
WEDNESDAY	I-BCOM	-=-	-=-	II-BCOM		-=-	-=-	-=-
THURSDAY	I-BCOM	-=-	-=-	II-BCOM		-=-	-=-	-=-
FRIDAY	II-BCOM	-=-	I-BCOM	II-BCOM		-=-	-=-	-=-
SATURDAY	II-BCOM	-=-	I-BCOM	II-BCOM		-=-	-=-	-=-

GOVERNMENT DEGREE COLLEGE-KANIGIRI

PRAKASAM DISTRICT, ANDHRA PRADESH - 523230

Faculty wise individual Time Table 2022-23

B.com(Res) ,SEMESTER-II,IV,VI

NAME OF THE FACULTY : D.HARI NARAYANA

PERIOD	1	2	3	4	LUNCH BREAK (1.20PM TO 2.20 PM)	5	6	7
TIME	10.00 AM	10.50AM	11.40M	12.30 M		2.20 PM	3.10 PM	4.00 PM
TO	10.50AM	11.40PM	12.30 PM	1.20PM		3.10 PM	4.00 PM	5.00 PM
MONDAY	I-BCOM	II-BCOM	III-BCOM	II-BCOM		III-BCOM	-=-	II-BCOM
TUESDAY	I-BCOM	II-BCOM	III-BCOM	II-BCOM		III-BCOM	-=-	I-BCOM
WEDNESDAY	I-BCOM	II-BCOM	III-BCOM	II-BCOM		III-BCOM	-=-	II-BCOM
THURSDAY	I-BCOM	II-BCOM	III-BCOM	II-BCOM		III-BCOM	-=-	-=-
FRIDAY	I-BCOM	II-BCOM	III-BCOM	II-BCOM		III-BCOM	-=-	-=-
SATURDAY	I-BCOM	II-BCOM	III-BCOM	II-BCOM		III-BCOM	-=-	-=-

ప్రభుత్వడిగ్రీకళాశాల-కనిగిరి

GOVERNMENT DEGREE COLLEGE-KANIGIRI

PRAKASAM DISTRICT, AP - 523230

DEPARTMENT OF COMPUTER APPLICATIONS

ACADEMIC YEAR: 2022-23

FACULTY PROFILE

D.HARI NARAYANA

LECTURER IN COMPUTERS

FACULTY PROFILE

Name		D.HARI NARAYANA
Designation		Lecturer
Department		COMPUTER APPLICATIONS
DoB		30/08/1986
Date of Joining in the Service		01/07/2022
Total Service		2 Years
Employee ID		–
Contact Information		D.HARI NARAYANA, Lecturer in computers, Government Degree College, Kanigiri, Prakasam Dist. Andhra Pradesh - 523230. Phone: 7306895815 Email: devarakondahari86@gmail.com
Qualification	:	B.Lisc,M.C.A.
Awards/Achievements		—--

Classes taught	Bachelor of Commerce (B.Com)(Res) - I,II,III Years
MOOCs Courses	—
Research & Publications	
Innovations in Teaching and Learning	1.Use of LMS(Learning Management System) 2.Blended and Interdisciplinary Teaching. 3.Usage of Online Tools like Google Classroom, Google Slides, Sheets and Google Forms. 4. Using Formative Assessment tools like Plickers.
Training of Trainers(TOT)	04

ANDHRA PRADESH STATE COUNCIL OF HIGHER EDUCATION
(A Statutory body of the Government of Andhra Pradesh)

CBCS – UG SYLLABUS SUBJECT REVIEW COMMITTEE
(w.e.f. 2020-21 Admitted Batch)
PROGRAMME: Three-Year BA/BCom(Computer Applications)

Domain Subject: Commerce (Computer Applications)
(Syllabus with Outcomes, Co-curricular Activities, Referencesfor Fifteen Courses of 1, 2, 3 & 4 Semesters)

Structure of BA/B.Com (Computer Applications)Programme under Revised CBCS

Sl. No	Code	Sem	Courses	Name of Course (Each Course consists 5 Units with each Unit having 12 hours of class-work)	Hours/ Week	Credits	Marks	
							Mid Sem	Sem End
1		I	1A	Fundamentals of Accounting	5	4	25	75
2		I	1B	Business Organization and Management	5	4	25	75
3		I	1C	**Information Technology**	3	3	25	75
4		I	1C-P	**Information Technology - Practical**	2	1		50
5		II	2A	Financial Accounting	5	4	25	75
6		II	2B	Business Economics	5	4	25	75
7		II	2C	**E-commerce and Web Designing**	3	3	25	75
8		II	2C-P	**E-commerce and Web Designing - Practical**	2	1		50
9		III	3A	Advanced Accounting	5	4	25	75
10		III	3B	Business Statistics	5	4	25	75
11		III	3C	**Programming with C & C++**	3	3	25	75
12		III	3C-P	**Programming with C & C++ - Practical**	2	1		50
13		IV	4A	Corporate Accounting	5	4	25	75
14		IV	4B	Cost and Management Accounting	5	4	25	75
15		IV	4C	Income Tax	5	4	25	75
16		IV	4D	Business Laws	5	4	25	75
17		IV	4E	Auditing	5	4	25	75
18		IV	4F	**Data Base Management System**	3	3	25	75
19		IV	4F-P	**Data Base Management System - Practical**	2	1		50
Total					**75**	**60**	**375**	**1325**

Note: external practical exams to be conducted for **B.Com/B.A (Computer Applications)** students on par with B.Sc. (Computer Science) Students.

ACHARYA NAGARJUNA UNIVERSITY-GUNTUR

Structure of B.Com (Computer Applications) Programme under Revised CBCS
Semester-wise Syllabus under CBCS (w.e.f. 2020-21 Admitted Batch)

I Year B Com (CA), Semester- I

Discipline: COMPUTER APPLICATIONS

COURSE 1C: INFORMATION TECHNOLOGY SYLLABUS
COURSE 1C: INFORMATION TECHNOLOGY

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Unit-I Introduction computers

Computer Definition - Characteristics and Limitations of Computer, Generations of Computer, Classification of Computers, Applications of Computer, Hardware — Basic organization of Computer - Input and Output Devices

Unit- II (Understanding computer memory and software)

Memories: primary, secondary and cache memory, **Software:** types of software, system software, Application software, commercial software, open source software, domain software and free ware software, **Programming Languages**: Introduction to Programming Languages – Generations of Programming Languages

Unit- III Get in touch with Word Processing (MS word)

Features of MS Word - Parts of Word Window – Creating, Saving, Opening document, Printing, Formatting: Formatting of Text and Paragraph - Bullets and Numbering - Editing - Moving and Copying - Find and Replace Text –Tables: Creating tables, inserting and deleting rows and columns, Insertion of pictures – Insertion of clipart - Mail Merge

Unit-IV Working with MS Excel

Features of Excel, Parts of Excel window, Workbooks, Creating, Opening and Saving a Workbook, Worksheets, rows, columns, Inserting and Deleting rows and columns, cells, Entering labels, values, and formulas in worksheet, Formatting: Adjusting row height and column width - Formatting cell values, Formulas and Functions: operators used in formula, cell references in formula, Mathematical, Statistical, Logical and Text functions, Charts: Different types of charts, Creating a chart

Unit-V MS Power point

Features of PowerPoint, Parts of PowerPoint window, creating, saving and opening presentation, working with slides: Inserting, deleting, copying slides, editing text, formatting text, Formatting and Modifying Presentations: Applying transition and animation to the slides, inserting music or sound on a slide, viewing slide show

Learning Resources (Course 1C: Information Technology)

References:

(1) P.Mohan computer fundamentals- HimalayaPublications.

(2) R.K.Sharma and Shashi K Gupta, Computer Fundamentals - Kalyani Publications

(3) Fundamentals of Computers ByBalagurusamy, Mcgraw Hill

(4) Fundamentals of Computers Rajaraman V Adabala N

(5) MS-Office S.S. Shrivastava

(6) Microsoft Office 2007 Fundamentals, 1st Edition By Laura Story, Dawna Walls

Online Resources:

https://support.office.com/en-us/office-training-center

https://www.skillshare.com/browse/microsoft-office

https://www.tutorialspoint.com/computer_fundamentals/index.htm https://www.javatpoint.com/computer-fundamentalstutorial

https://edu.gcfglobal.org/en/subjects/office/

https://www.microsoft.com/en-us/learning/training.aspx

ACHARYA NAGARJUNA UNIVERSITY-GUNTUR

Structure of B.Com (Computer Applications) Programme under Revised CBCS
Semester-wise Syllabus under CBCS (w.e.f. 2020-21 Admitted Batch)

I Year B Com (CA), Semester- I

Discipline: COMPUTER APPLICATIONS

COURSE 1C: INFORMATION TECHNOLOGY PRACTICAL SYLLABUS

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Computer Basics

1. Identifying different parts of Computer.
2. Identifying different input and output devices.
3. Installing a software (for example ms word, antivirus) using license key.
4. Identifying different desktop icons and it's working.

MS WORD

1. Creation of documents letters invitations etc,
2. Creating your personal resume.
3. Creating your class timetable.
4. Perform mail merge using MS Word

MS EXCEL

1. MS Excel performing different formulas
2. Creating charts in Excel.
3. Printing and adjusting MS Excel worksheet
4. Prepare a worksheet for calculating percentages of your class mates using different excel formulas.

MS Power Point.

1. Create presentation in power point
2. Inserting, deleting slides in Power Point
3. Illustrate Animation in presentation

RECOMMENDED CO-CURRICULAR ACTIVITIES:

(Co-curricular activities shall not promote copying from textbook or from others work and shall encourage self/independent and group learning)

Measurable

1. Assignments (in writing and doing forms on the aspects of syllabus content and outside the syllabus content. Shall be individual and challenging)
2. Student seminars (on topics of the syllabus and related aspects (individual activity)
3. Quiz (on topics where the content can be compiled by smaller aspects and data (Individuals or groups as teams))
4. Field studies (individual observations and recordings as per syllabus content and related areas (Individual or team activity)
5. Study projects (by very small groups of students on selected local real-time problems pertaining to syllabus or related areas. The individual participation and contribution of students shall be ensured (team activity))

General

1. Group Discussion
2. Visit to Software Technology parks / industries

RECOMMENDED CONTINUOUS ASSESSMENT METHODS:

Some of the following suggested assessment methodologies could be adopted;

1. The oral and written examinations (Scheduled and surprise tests),
2. Closed-book and open-book tests,
3. Coding exercises,
4. Practical assignments and laboratory reports,
5. Observation of practical skills,
6. Individual and group project reports,
7. Efficient delivery using seminar presentations,
8. Viva voce interviews.
9. Computerized adaptive testing, literature surveys and evaluations,
10. Peers and self-assessment, outputs form individual and collaborative work

ACHARYA NAGARJUNA UNIVERSITY-GUNTUR

Structure of B.Com (Computer Applications) Programme under Revised CBCS
Semester-wise Syllabus under CBCS (w.e.f. 2020-21 Admitted Batch)

I Year B Com (CA), Semester- I

Discipline: COMPUTER APPLICATIONS

PAPER – 1C: INFORMATION TECHNOLOGY

MODEL QUESTION PAPER

Time: 3 Hours **Max. Marks : 75**

SECTION-A

Answer any FIVE of the following Questions: (5 x 5= 25 Marks)

1. Write characteristics of computers
2. Write about different programming languages.
3. Write about cache memory
4. Write the differences between application and system software.
5. Explain how to create and save documents in Word
6. Write about how to insert page numbers in a document
7. Explain creating and using formulas in Excel
8. How will you insert and delete rows in Excel
9. Write about opening a presentation in Power Point
10. Explain about custom animation.

SECTION - B

Answer any FIVE of the following Questions (5 □ 10 =50 Marks)

11. Explain different input-output organization.
12. Write about classification of programming languages.
13. Define Memory. Write about Primary memory units
14. Write about generations of operating systems.
15. Write and explain the parts of Word window
16. Explain about how to create tables in MS Word
17. Write in detail about features of Excel
18. What is a chart? Explain different types of charts
19. Explain the creation procedure of a presentation in Power Point
20. Define animation. Explain how to you add transition and animation to the slides

Note: Paper Setter must select TWO Short Questions and TWO Essay Questions from Each Unit

ACHARYA NAGARJUNA UNIVERSITY-GUNTUR

Structure of B.Com (Computer Applications) Programme under Revised CBCS
Semester-wise Syllabus under CBCS (w.e.f. 2020-21 Admitted Batch)

I Year B Com (CA), Semester- II

Discipline: COMPUTER APPLICATIONS

COURSE 2C: E-COMMERCE & WEB DESIGNING

Unit I: Introduction:

Introduction to Internet: Internet Terminology – History of the Internet – Advantages& disadvantages of Internet – How internet works

Electronic Commerce: Definition, types, advantages and disadvantages, E-Commerce transaction on World Wide Web. Electronic Market-Online shopping, Three models of Electronic Market - E-Business.

Unit-II: E-payment System

Models and methods of e–payments (Debit Card, Credit Card, Smart Cards, e-money), Digital Signatures (Procedure, Working And Legal Position), Payment Gateways, Online Banking (Meaning, Concepts, Importance), Risks Involved in e-payments.

Unit-III: On-line Business Transactions:

Meaning, Purpose, Advantages and Disadvantages of Transacting Online, E-Commerce Applications in Various Industries Like (Banking, Insurance, Payment of Bills), Benefits, Problems and Features, Online Services (Financial, Travel and Career), Online Learning, Online Shopping (Amazon, Flipkart, etc.)

Unit-IV: Website Designing

Introduction to HTML: Basic HTML – HTML document structure – HTML tags – Basefont tag – title tag – body tag – Horizontal Rule Tag - Text formatting tags – Character tags, **HTML Lists :** Ordered List , Unordered List & Definition List – Using colors – Using Images

Unit V: Website Designing:

Hyperlinks: Textual links, Graphical links, types of document links, anchor tag **HTML Tables** – table creations tags, Nested Tables, **Frames:** Frame introduction - frame creation tags – Nested Frames.

References:

(1) E-commerce and E-Business , Himalaya publishers
(2) E-Commerce by Kenneth C Laudon, PEARSON INDIA
(3) Web Design: Introductory with MindTap Jennifer T Campbell, Cengage India
(4) HTML & WEB DESIGN:TIPS& TECHNIQUES JAMSA, KRIS, McGraw Hill
(5) Fundamentals Of Web Development by Randy Connolly, Ricardo Hoar, Pearson
(6) HTML & CSS: COMPLETE REFERENCE POWELL,THOMAS, McGrawHill

Online Resources:

http://www.kartrocket.com
http://www.e-commerceceo.com
http://www.fastspring.com
https://teamtreehouse.com/tracks/web-design

RECOMMENDED CO-CURRICULAR ACTIVITIES:

(Co-curricular activities shall not promote copying from textbook or from others work and shall encourage self/independent and group learning)

MEASURABLE

1. Assignments (in writing and doing forms on the aspects of syllabus content and outside the syllabus content. Shall be individual and challenging)
2. Student seminars (on topics of the syllabus and related aspects (individual activity)
3. Quiz (on topics where the content can be compiled by smaller aspects and data (Individuals or groups as teams)
4. Field studies (individual observations and recordings as per syllabus content and related areas (Individual or team activity)
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GENERAL

Group Discussion
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RECOMMENDED CONTINUOUS ASSESSMENT METHODS:

Some of the following suggested assessment methodologies could be adopted;

1. The oral and written examinations (Scheduled and surprise tests),
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3. Coding exercises,
4. Practical assignments and laboratory reports,

5. Observation of practical skills,
6. Individual and group project reports,
7. Efficient delivery using seminar presentations,
8. Viva voce interviews.
9. Computerized adaptive testing, literature surveys and evaluations,
10. Peers and self-assessment, outputs form individual and collaborative work

1. Creation of simple web page using formatting tags
2. Creation of lists and
3. Creation of web page with text tags
4. Creation of tables with attributes
5. Creation of hyperlinks
6. Creation of hyperlinks and including images
7. Creation of forms
8. Creation of framesets

ACHARYA NAGARJUNA UNIVERSITY-GUNTUR

Structure of B.Com (Computer Applications) Programme under Revised CBCS
Semester-wise Syllabus under CBCS (w.e.f. 2020-21 Admitted Batch)

I Year B Com (CA), Semester- II

PAPER – 2C: E-COMMERCE & WEB DESIGNING

MODEL QUESTION PAPER

Time: 3 Hours **Max. Marks : 75**

SECTION-A

Answer any FIVE of the following Questions: (5 x 5= 25 Marks)

1. Define Internet. Write disadvantages of Internet
2. Write about e-business
3. Define e-payment system
4. Explain briefly the methods of e-payment system
5. Write the purpose of online business transaction
6. Write about online learning
7. Briefly explain HTML document structure
8. Write about Horizontal rule tag
9. Define table. Explain table creation tags.
10. Define Hyperlink

SECTION - B

Answer any FIVE of the following Questions (5 □ 10 =50 Marks)

11. Explain the working of Internet.
12. What is e-commerce? Write about the three models of e-market
13. Explain about Payment gateways
14. Write about various risks involved in e-payment system
15. Write and explain advantages of online transactions
16. Explain the features of online shopping with an example
17. Write in detail about text formatting tags in HTML
18. Write about lists in HTML
19. Explain different types hyperlinks used in a web page
20. Explain about frames in HTML

Note: Paper Setter must select TWO Short Questions and TWO Essay Questions from Each Unit

ACHARYA NAGARJUNA UNIVERSITY-GUNTUR

Structure of B.Com (Computer Applications) Programme under Revised CBCS
Semester-wise Syllabus under CBCS (w.e.f. 2020-21 Admitted Batch)

I Year B Com (CA), Semester- III

Discipline: COMPUTER APPLICATIONS

COURSE 3C: PROGRAMMING WITH C & C++

Model Outcomes:

At the end of the course, the students is expected to DEMONSTRATE the following cognitive abilities (thinking skill) and psychomotor skills.

A. Remembers and states in a systematic way (Knowledge)

1. Develop programming skills
2. Declaration of variables and constants use of operators and expressions
3. learn the syntax and semantics of programming language
4. Be familiar with programming environment of C and C++
5. Ability to work with textual information (characters and strings) & arrays

B. Explains (Understanding)

6. Understanding a functional hierarchical code organization
7. Understanding a concept of object thinking within the framework of functional model
8. Write program on a computer, edit, compile, debug, correct, recompile and run it

C. Critically examines, using data and figures (Analysis and Evaluation)

9. Choose the right data representation formats based on the requirements of the problem
10. Analyze how C++ improves C with object-oriented features
11. Evaluate comparisons and limitations of the various programming constructs and choose correctone for the task in hand.

D. Working in 'Outside Syllabus *Area' under a Co-curricular Activity*(Creativity) Planning of structure and content, writing, updating and modifying computer programs for user solutions

E Exploring C programming and Design C++ classes for code reuse (Practical skills***)

SYLLABUS

COURSE 3C: PROGRAMMING WITH C & C++

Unit-I Introduction:

Introduction - Structure of C program – C character set, Tokens: Constants, Variables, Keywords, Identifiers – C data types - C operators (arithmetic, relational, logical, increment and decrement) - Standard I/O in C (scanf, printf) - Conditional Control statements (if and Switch) Statements.

Unit-II **Loops And Arrays:**

Repetitive statements: While, Do While and For Loops - Use of Break and Continue Statements –**Arrays**: Introduction – Types of arrays, one dimensional arrays - Declaration of one dimensional arrays–Accessing array elements–Storing values in an array –Two Dimensional Arrays Declaration of two dimensional arrays – Accessing array elements– Storing values in 2-D arrays.

Unit- III **Strings and Functions:**

Strings: Definition, Declaration and Initialization of String Variables - String Handling Functions – **Functions**: Defining Functions - Function Call – passing parameters: Call By Value, Call By Reference.

Unit- IV **Classes and Objects**

Introduction to OOP and its basic features - C++ program structure - Classes and objects - Friend Functions- Static Functions –Constructor – Types of constructors – Destructors - Operators

Unit-V **Inheritance:**

Inheritance - Types of Inheritance -Types of derivation- Public – Private - Protected Hierarchical Inheritance - Multilevel Inheritance – Multiple Inheritance - Hybrid Inheritance

Learning Resources (Course 3C: : Programming with C & C++)

References:

(1) Computer Fundamentals and Programming in C by Reema Thareja from Oxford University Press

(2) Mastering C by K R Venugopal and Sudeep R Prasad, McGraw Hill

(3) Let Us C, Yashavant Kanetkar

(4) E. Balagurusamy "Object oriented programming with C++

(5) R.Ravichandran "Programming with C++"

(6) The C++ Programming Language Bjarne Stroustrup

Online Resources:

https://www.tutorialspoint.com/cprogramming/index.html https://www.learn-c.org/

https://www.programiz.com/c-programming

https://www.w3schools.in/c-tutorial/

https://www.cprogramming.com/tutorial/c-tutorial.html

https://www.tutorialspoint.com/cplusplus/index.html

https://www.programiz.com/cpp-programminghttp://www.cplusplus.com/doc/tutorial/ https://www.learn-cpp.org/

https://www.javatpoint.com/cpp-tutorial

COURSE 3C: PROGRAMMING WITH C & C++ Practical Component

1. Write C programs for
    a. Fibonacci Series
    b. Prime number
    c. Palindrome number
    d. Armstrong number.
2. 'C' program for multiplication of two matrices
3. 'C' program to implement string functions
4. 'C' program to swap numbers
5. 'C' program to calculate factorial using recursion
6. 'C++' program to perform addition of two complex numbers using constructor
7. Write a program to find the largest of two given numbers in two different classes using friend function
8. Program to add two matrices using dynamic constructor
9. Implement a class string containing the following functions:
    a. Overload + operator to carry out the concatenation of strings.
    b. Overload == operator to carry out the comparison of strings.
10. Program to implement inheritance.

RECOMMENDED CO-CURRICULAR ACTIVITIES:

(Co-curricular activities shall not promote copying from textbook or from others work and shall encourage self/independent and group learning)

MEASURABLE

1. Assignments (in writing and doing forms on the aspects of syllabus content and outside the syllabus content. Shall be individual and challenging)
2. Student seminars (on topics of the syllabus and related aspects (individual activity)
3. Quiz (on topics where the content can be compiled by smaller aspects and data (Individuals or groups as teams)
4. Field studies (individual observations and recordings as per syllabus content and related areas (Individual or team activity)
5. Study projects (by very small groups of students on selected local real-time problems pertaining to syllabus or related areas. The individual participation and contribution of students shall be ensured (team activity))

General

Group Discussion
Visit to Software Technology parks / industries

RECOMMENDED CONTINUOUS ASSESSMENT METHODS:

Some of the following suggested assessment methodologies could be adopted:

1. The oral and written examinations (Scheduled and surprise tests),
2. Closed-book and open-book tests,
3. Coding exercises,
4. Practical assignments and laboratory reports,
5. Observation of practical skills,
6. Individual and group project reports,
7. Efficient delivery using seminar presentations,
8. Viva voce interviews.
9. Computerized adaptive testing, literature surveys and evaluations,
10. Peers and self-assessment, outputs form individual and collaborative work

ACHARYA NAGARJUNA UNIVERSITY-GUNTUR

Structure of B.Com (Computer Applications) Programme under Revised CBCS
Semester-wise Syllabus under CBCS (w.e.f. 2020-21 Admitted Batch)
I Year B Com (CA), Semester- III

COURSE 3C: PROGRAMMING WITH C & C++

MODEL QUESTION PAPER

Time: 3 Hours **Max. Marks : 75**

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SECTION-A

Answer any FIVE of the following Questions: (5 x 5= 25 Marks)

1. Write about constants used in C language
2. Explain briefly about switch statement
3. Write about break and continue statements
4. Explain two dimensional array declaration
5. Write about call by value method
6. Define Parameter.
7. Briefly explain classes and objects
8. Write about friend function in C++
9. Define Inheritance. Explain hybrid inheritance
10. Explain about benefits of inheritance

SECTION - B

Answer any FIVE of the following Questions (5 □ 10 =50 Marks)

11. Explain the structure of C program with an example.
12. What is an operator? Write about various operators used in C
13. Explain about repetitive statements with an example
14. Define an Array. Write about declaration of arrays in C
15. Illustrate string handling functions used in C language
16. What is a function? Write about defining a function
17. Write in detail about features of Object Oriented Programming
18. Explain different types of constructors in C++
19. Explain about various types of inheritance.
20. Write C++ program to implement multiple inheritance

Note: Paper Setter must select TWO Short Questions and TWO Essay Questions from Each Uni

ACHARYA NAGARJUNA UNIVERSITY-GUNTUR

Structure of B.Com (Computer Applications) Programme under Revised CBCS
Semester-wise Syllabus under CBCS (w.e.f. 2020-21 Admitted Batch)
I Year B Com (CA), Semester- IV

COURSE 4C: Database Management System

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Unit-I (Overview of Database Management System)

Introduction, Data and Information, Database, Database Management System, Objectives of DBMS, Evolution of Database Management System, Classification of Database Management System.

UNIT-II(File-Based System)

File Based System. Drawbacks of File-Based System, DBMS Approach, Advantage of DBMS, Data Models, Components of Database System, Database Architecture, DBMS Vendors and their products.

UNIT-III (Entity-Relationship Model)

Introduction, The Building Blocks of an Entity-Relationship, Classification of Entity Set, Attribute Classification, Relationship Degree, Relationship Classification, Generalization and Specialization, Aggregation and Composition, CODD's Rules, Relational Data Model, Concept of Relational Integrity.

UNIT-IV (Structured Query Language)

Introduction, History of SQL Standards, Commands in SQL, Data types in SQL, Data Definition Language (DDL),Selection Operation Projection Operation, Aggregate Functions, Data Manipulation Language, Table Modification, Table Truncation, Imposition of Constraints, Set Operations.

UNIT-V (PL/SQL)

Introduction, Structure of PL/SQL,PL/SQL Language Elements, Data Types, Control Structure, Steps to Create a PL/SQL Program, Iterative Control Cursors, Steps to Create a Cursor, Procedure, Functions, Packages, Exceptions Handling, Database Triggers, Types of triggers.

ACHARYA NAGARJUNA UNIVERSITY-GUNTUR

Structure of B.Com (Computer Applications) Programme under Revised CBCS
Semester-wise Syllabus under CBCS (w.e.f. 2020-21 Admitted Batch)
B Com (CA), Semester

QUESTION PAPER PATTERN FOR END SEMESTER EXAM UG

CBCS SEMESTER PATTERN

Time: 3 Hours **Max. Marks: 75**

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SECTION-A

Answer any FIVE of the following Questions: (5 x 5= 25 Marks)

1.
2.
3.
4.
5.
6.
7.
8.
9.
10.

SECTION - B

Answer any FIVE of the following Questions (5 □ 10 =50 Marks)

11.
12.
13.
14.
15.
16.
17.
18.
19.
20.

Note: Paper Setter must select TWO Short Questions and TWO Essay Questions from Each Unit

PROGRAMME: FOUR-YEAR B Com(Computer Applications) (Hons)

Domain Subject: Computer Applications

Semester-wise Syllabus under CBCS

(w.e.f. 2020-21 Admitted Batch)

II Year B Com (CA)– Semester – IV

Course 4E: Object Oriented Programming with Java

Learning Outcomes:

At the end of the course, the student will able to;

- Understanding the meaning and necessity of audit in modern era
- Comprehend the role of auditor in avoiding the corporate frauds
- Identify the steps involved in performing audit process
- Determine the appropriate audit report for a given audit situation
- Apply auditing practices to different types of business entities
- Plan an audit by considering concepts of evidence, risk and materiality

SYLLABUS:

Unit I: Introduction to OOPs: Problems in Procedure Oriented Approach, Features of Object Oriented Programming

Introduction to Java: Features of Java, The Java Virtual Machine (JVM), Parts of Java program, Naming Conventions in Java, Data Types in Java, Operators in Java, Reading Input using scanner Class, Displaying Output using System. out.println (), Command Line Arguments.

Unit II: Control Statements in Java: if... else, do... while Loop, while Loop, For loop, Switch Statement, break Statement, continue Statement

Arrays: Types of Arrays, array name, length,

Strings: Creating Strings, String Class Methods, String Comparison, Immutability of Strings.

Unit III: Classes and Objects: Object Creation, Initializing the Instance Variables, Access Specifiers, Constructors

Inheritance: Inheritance, Types of Inheritance

Polymorphism: Method overloading, Operator overloading

Abstract Classes: Abstract Method and Abstract Class

Unit IV: Packages: Package, Different Types of Packages, Creating Package and Accessing a Package

28/6/22

Streams: Stream classes, Creating a File using File Output Stream, Reading Data from a File using File Input Stream, Creating a File using File Writer, Reading a File using File Reader

Unit V: Exception Handling: Errors in Java Program, Exceptions, throws Clause, throw Clause, Types of Exceptions
Threads: Single Tasking, Multi-Tasking, Uses of Threads, Creating a Thread and Running it, Terminating the Thread, Thread Class Methods.

References:

1. The Complete Reference JAVA Seventh Edition Herbert Schildt. Tata McGraw Hill Edition.
2. Core Java: An Integrated Approach, Dr. R. Nageswara Rao &Kogent Learning Solutions Inc.
3. E. Balaguruswamy, Programming with JAVA, A primer, 3e, TATA McGrawHill Company

Online Resources:

https://stackify.com/java-tutorials/
https://www.w3schools.com/java/
https://www.javatpoint.com/java-tutorial
https://www.tutorialspoint.com/java/index.html

Practical Component:@ 2 hours/week/batch

1. Write a program to implement command line arguments.
2. Write a program to read Student Name, Reg.No, Marks and calculate Total, Percentage,and Result. Display all the details of students .
3. Write a program to perform String Operations.
4. Java program to implement Addition of two N X N matrices.
5. Java program to implement bubble sort.
6. Java program to demonstrate the use of Constructor.
7. Calculate area of the following shapes using method overloading.
   a.Rectangle b. Circle c. Square
8. Implement multilevel inheritance
9. Java program for to display Serial Number from 1 to 5 by creating two Threads
10. Java program to demonstrate the following exception handlings
    a. Divided by Zero b. Array Index Out of Bound c. Arithmetic Exception

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ANDHRAPRADESHSTATECOUNCILOFHIGHEREDUCATION
(A Statutory body of the Government of Andhra Pradesh)

REVISED UG SYLLABUS UNDER CBCS
(Implemented from Academic Year - 2020-21)
PROGRAMME: FOUR YEAR B.A./B.Com (Hons)

Domain Subject**: Computer Applications for Arts/Commerce**
Skill Enhancement Courses (SECs) for Semester V, from 2022-23 *(Syllabus/Curriculum)*

Pair Options of SECs for Semester–V
(To choose One pair from the Four alternate pairs of SECs)

Univ. Code	Course NO. 6&7	Name of Course	Hrs. / Week	Max Marks IE	Max Marks EE	Credits
	6A	Big data Analytics using R	5	25	75	4
	7A	Data Science using Python	5	25	75	4
		OR				
	6B	Mobile application development	5	25	75	4
	7B	Cyber security and malware analysis	5	25	75	4
		OR				
	6C	E– commerce application development	5	25	75	4
	7C	Real time governance system (RTGS)	5	25	75	4
		OR				
	6D	Multimedia Tools and Applications	5	25	75	4
	7D	Digital imaging	5	25	75	4

Note-1: For Semester–V, for the domain subject Computer Applications, any one of the above four pairs of SECs shall be chosen as courses 6 and 7, i.e., 6A & 7A or 6B & 7B or 6C& 7C or 6D & 7D.The pair shall not be broken (ABCD allotment is random, not on any priority basis).

Note-2: *One of the main objectives of Skill Enhancement Courses (SEC) is to inculcate practical skills related to the domain subject in students. The syllabus of SEC will be partially skill oriented. Hence, teachers shall also impart practical training to students on the skills embedded in syllabus citing related real field situations.*

Note-3: *Since, the proposed SECs are connected to Computer Programming/Software Tools and Skill enhancement, the students need to get exposure on the syllabus content by practicing on the computer even though there is no formal assignment of credits and laboratory hours for practical sessions. So, as part of the Co-curricular activities and continuous assessment, students should be engaged in practicing on computer for at least 15 hours per subject/course.*

A.P. State Council of Higher Education
Semester-wise Revised Syllabus under CBCS, 2019-20
Subject: **Computer Applications for Arts/Commerce**
Four year B.A. /B.Com. (Hons) Semester –V (from 2022-23)
Course Code: Max Marks: 100

Course-**6A: BIGDATA ANALYTICS USING R**
(Skill Enhancement Course (Elective), 4 credits)

I. **Learning Outcomes**:

Upon successful completion of the course, a student will be able to:

1. Understand data and classification of digital data.
2. Understand Big Data Analytics.
3. Load data in to R.
4. Organize data in the form of R objects and manipulate them as needed.
5. Perform analytics using R programming.

II. Syllabus: (Total hours: 75 including Theory, Practical, Training, Unit tests etc.)

Unit – 1: Introduction to Big data (12 h)

Data, classification Of Digital Data--structured, unstructured, semi-structured data, characteristics of data, evaluation of big data, definition and challenges of big data , what is big data and why to use big data ?, business intelligence Vs big data.

Unit – 2: Big data Analytics (10 h)

What is and isn't big data analytics? Why hype around big data analytics? Classification of analytics, top challenges facing big data, importance of big data analytics, technologies needed to meet challenges of big data.

Unit – 3: Introduction to R and getting started with R **(**13h)

What is R? Why R? , advantages of R over other programming languages, Data types in R-logical, numeric, integer, character, double, complex, raw, coercion, ls() command, expressions, variables and functions, control structures, Array, Matrix, Vectors, R packages.

Unit – 4: Exploring data in R (13h)

Data frames-data frame access, ordering data frames, R functions for data frames dim(), nrow(), ncol(), str(), summary(), names(), head(), tail(), edit() .Load data frames—reading from .CSV files, sub setting data frames, reading from tab separated value files, reading from tables.

Unit – 5: Data Visualization using R (12h)

Reading and getting data into R (External Data): XML files, Web Data, JSON files, Databases, Excel files.

Working with R Charts and Graphs: Histograms, Bar Charts, Line Graphs, Scatterplots, Pie Charts

BOOKS

1. Seema Acharya , Subhashini Chellappan --- Big Data And Analytics second edition, Wiley
2. Seema Acharya--Data Analytics using R, McGraw Hill education (India) Private Limited.
3. Big Data Analytics, Introduction to Hadoop, Spark, and Machine-Learning, Raj kamal,
   Preeti Saxena, McGraw Hill, 2018.
4. Big Data, Big Analytics: Emerging Business intelligence and Analytic trends for Today's
   Business, Michael Minelli, Michelle Chambers, and Ambiga Dhiraj, John Wiley & Sons,
   2013

Reference Books:

1. An Introduction to R, Notes on R: A Programming Environment for Data Analysis and Graphics. W. N. Venables, D.M. Smith and the R Development Core Team

RECOMMENDED CO-CURRICULAR ACTIVITIES:

(Co-curricular activities shall not promote copying from textbook or from others work and shall encourage self/independent and group learning)

A. Measurable

1. Assignments (in writing and doing forms on the aspects of syllabus content and outside the syllabus content. Shall be individual and challenging)
2. Student seminars (on topics of the syllabus and related aspects (individual activity))
3. Quiz (on topics where the content can be compiled by smaller aspects and data (Individuals or groups a steams))
4. Study projects (by very small groups of students on selected local real-time problems pertaining to syllabus or related areas. The individual participation and contribution of students shall be ensured (team activity

B. General

1. Group Discussion
2. Try to solve MCQ’s available online.
3. Others

RECOMMENDED CONTINUOUS ASSESSMENT METHODS:

Some of the following suggested assessment methodologies could be adopted;

1. The oral and written examinations (Scheduled and surprise tests),
2. Closed-book and open-book tests,
3. Problem-solving exercises,
4. Practical assignments and laboratory reports.
5. Observation of practical skills,
6. Individual and group project reports like "Creating Text Editor in C".
7. Efficient delivery using seminar presentations,
8. Viva voce interviews.
9. Computerized adaptive testing, literature surveys and evaluations,
10. Peers and self-assessment, outputs form individual and collaborative work

Course-6A: **Big Data Analytics Using R---- Lab (Practical) Syllabus (15 Hrs.)**

(Since, the proposed SECs are connected to Computer Programming/Software Tools and Skill enhancement, the students need to get exposure on the syllabus content by practicing on the computer even though there is no formal assignment of credits and laboratory hours for practical sessions. So, as part of the Co-curricular activities and continuous assessment, students should be engaged in practicing on computer for at least 15 hours per semester.)

1. Create a vector in R and perform operations on it.
2. Create integer, complex, logical, character data type objects in R and print their values and their class using print and class functions.
3. Write code in R to to demonstrate sum(), min(), max() and seq() functions.
4. Write code in R to manipulate text in R using grep(), toupper(), tolower() and substr() functions.
5. Create data frame in R and perform operations on it.
6. Import data into R from text and excel files using read.table () and read.csv () functions.
7. Write code in R to find out whether number is prime or not.
8. Print numbers from 1 to 100 using while loop and for loop in R.
9. Write a program to import data from csv file and print the data on the console.
10. Write a program to demonstrate histogram in R.

Note: The list of experiments need not be restricted to the above list. *Detailed list of Programming/software tool based exercises can be prepared by the concerned Faculty members.*

A.P. State Council of Higher Education
Semester-wise Revised Syllabus under CBCS, 2019-20
Four year B.A./B.Com.(Hons) (Hons)

Course Code:

Subject: **Computer Applications for Arts/Commerce**
Four year B.A. /B.Com. (Hons)Semester –V (from 2022-23)

Max Marks: 100

Course-**7A: DATA SCIENCE USING PYTHON**
(Skill Enhancement Course (Elective), 4 credits)

Learning Outcomes:

Upon successful completion of the course, a student will be able to:

1. Understand basic concepts of data science
2. Understand why python is a useful scripting language for developers.
3. Use standard programming constructs like selection and repetition.
4. Use aggregated data (list, tuple, and dictionary).
5. Implement functions and modules.

II. Syllabus :(Total hours: 75 including Theory, Practical, Training, Unit tests etc.)

Unit – 1: Introduction to data science (12h)

Data science and its importance, advantages of data science, the process of data science, Responsibilities of a data scientist, qualifications of data scientists, would you be a good data scientist, why to use python for data science.

Unit – 2: Introduction to python (14h)

What is python , features of python, history of python, writing and executing the python program, basic syntax, variables, keywords, data types ,operators ,indentation, Conditional statements-if, if-else, nested if-else, looping statements-for, while, break, continue, pass

Unit – 3: Control structures and strings (10h)

Strings - definition, accessing, slicing and basic operations

Lists - introduction, accessing list, operations, functions and methods,

Tuples - introduction, accessing tuple

Dictionaries - introduction, accessing values in dictionaries

Unit – 4: Functions and modules (13h)

Functions - defining a function, calling a function, types of functions, function arguments, local and global variables, lambda and recursive functions, Modules- math and random

Unit-5: Classes & Objects (11h)

Classes and Objects, Class method and self-argument, class variables and object variables, public and private data members, private methods, built-in class attributes, static methods.

Reference Books:

1. Steven cooper--- Data Science from Scratch, Kindle edition
2. Reemathareja—Python Programming using problem solving approach, Oxford Publication

RECOMMENDED CO-CURRICULAR ACTIVITIES:

(Co-curricular activities shall not promote copying from textbook or from others work and shall encourage self/independent and group learning)

C. Measurable

1. Assignments (in writing and doing forms on the aspects of syllabus content and outside the syllabus content. Shall be individual and challenging)
2. Student seminars (on topics of the syllabus and related aspects (individual activity))
3. Quiz (on topics where the content can be compiled by smaller aspects and data (Individuals or groups a steams))
4. Study projects (by very small groups of students on selected local real-time problems pertaining to syllabus or related areas. The individual participation and contribution of students shall be ensured (team activity

D. General

1. Group Discussion
2. Try to solve MCQ's available online.
3. Others

RECOMMENDED CONTINUOUS ASSESSMENT METHODS:

Some of the following suggested assessment methodologies could be adopted;

11. The oral and written examinations (Scheduled and surprise tests),
12. Closed-book and open-book tests,
13. Problem-solving exercises,
14. Practical assignments and laboratory reports.
15. Observation of practical skills,
16. Individual and group project reports like "Creating Text Editor in C".
17. Efficient delivery using seminar presentations,
18. Viva voce interviews.
19. Computerized adaptive testing, literature surveys and evaluations,
20. Peers and self-assessment, outputs form individual and collaborative work

Course-7A**: Data Science Using Python; Lab (Practical) Syllabus (15 Hrs.)**

(Since, the proposed SECs are connected to Computer Programming/Software Tools and Skill enhancement, the students need to get exposure on the syllabus content by practicing on the computer even though there is no formal assignment of credits and laboratory hours for practical sessions. So, as part of the Co-curricular activities and continuous assessment, students should be engaged in practicing on computer for at least 15 hours per semester.)

1. Python Program to Find the Square Root
2. Python Program to Swap Two Variables
3. Python Program to Generate a Random Number
4. Python Program to Check if a Number is Odd or Even
5. Python Program to Find the Largest Among Three Numbers
6. Python Program to Check Prime Number
7. Python Program to Display the multiplication Table
8. Python Program to Print the Fibonacci sequence
9. Python Program to Find the Sum of Natural Numbers
10. Python Program to Find Factorial of Number Using Recursion
11. Python Program to work with string methods.
12. Python Program to create a dictionary and print its content.
13. Python Program to create class and objects.

Note: The list of experiments need not be restricted to the above list. *Detailed list of Programming/software tool based exercises can be prepared by the concerned Faculty members.*

A.P. State Council of Higher Education
Semester-wise Revised Syllabus under CBCS, 2019-20
Four year B.A./B.Com.(Hons) (Hons)

Course Code:

Subject: **Computer Applications for Arts/Commerce**
Four year B.A./B.Com.(Hons) Semester –V (from 2022-23)

Max Marks: 100

Course-**6B: MOBILE APPLICATION DEVELOPMENT**
(Skill Enhancement Course (Elective), 4 credits)

Learning Outcomes:

Upon successful completion of the course, a student will be able to:

1. Identify basic terms ,tools and software related to android systems
2. Describe components of IDE, understand features of android development tools
3. Describe the layouts and controls
4. Explain the significance of displays using the given view
5. Explain the features of services and able to publish android Application
6. Developing interesting Android applications using MIT App Inventor

Unit-1:(Total hours: 75 including Theory, Practical, Training, Unit tests etc.)
10 Hrs

1.1 Introduction to Android ,open headset alliance, Android Ecosystem
1.2 Need of Android
1.3 Features of Android
1.4 Tools and software required for developing an Application

Unit-2: **13Hrs**

2.1 operating system, java JDK, Android SDK
2.2 Android development tools
2.3 Android virtual devices
2.4 steps to install and configure Android studio and sdk
2.5 Android activities

Unit-3: **14Hrs**

3.1 control flow, directory structure
3.2 components of a screen
3.3 fundamental UI design
3.4 linear layout, absolute layout , table layout
3.5 text view
3.6 edit text
3.7 button, image button, radio button
3.8 radio group, check box, and progress bar
3.9 list view, grid view, image view, scroll view

3.10 time and date picker
3.11 toast

Unit-4: **10Hrs**

4.1 android platform services
4.2 Android system Architecture
4.3 Android Security model

Unit-5 13Hrs.

5.1 Introduction of MIT App Inventor
5.2 Application Coding
5.3Programming Basics & Dialog
5.4 Audio& Video
5.5 File

Text Books:

1. Erik Hellman, "Android Programming – Pushing the Limits", 1st Edition, Wiley India Pvt Ltd, 2014.
2. App Inventor: create your own Android apps by Wolber, David (David Wayne)

Reference Books:

1. Dawn Griffiths and David Griffiths, "Head First Android Development", 1st Edition, O'Reilly SPD Publishers, 2015.
2. J F DiMarzio, "Beginning Android Programming with Android Studio", 4th Edition, Wiley India Pvt Ltd, 2016. ISBN-13: 978-8126565580
3. Anubhav Pradhan, Anil V Deshpande, " Composing Mobile Apps" using Android, Wiley 2014, ISBN: 978-81-265-4660-2
4. Android Online Developers Guide
5. http://developer.android.com/reference/ Udacity: Developing Android
6. Apps- Fundamentals
7. https://www.udacity.com/course/developing-android-appsfundamentals--ud853-nd
8. http://www.appinventor.mit.edu/

RECOMMENDED CO-CURRICULAR ACTIVITIES:

(Co-curricular activities shall not promote copying from textbook or from others work and shall encourage self/independent and group learning)

E. Measurable

1. Assignments (in writing and doing forms on the aspects of syllabus content and outside the syllabus content. Shall be individual and challenging)
2. Student seminars (on topics of the syllabus and related aspects (individual activity))
3. Quiz (on topics where the content can be compiled by smaller aspects and data (Individuals or groups as teams))
4. Study projects (by very small groups of students on selected local real-time

problems pertaining to syllabus or related areas. The individual participation and contribution of students shall be ensured (team activity

General

a. Group Discussion
b. Try to solve MCQ's available online.
c. Others

RECOMMENDED CONTINUOUS ASSESSMENT METHODS:

Some of the following suggested assessment methodologies could be adopted;

1. The oral and written examinations (Scheduled and surprise tests),
2. Closed-book and open-book tests,
3. Problem-solving exercises,
4. Practical assignments and laboratory reports.
5. Observation of practical skills,
6. Efficient delivery using seminar presentations,
7. Viva voce interviews.
8. Computerized adaptive testing, literature surveys and evaluations,
9. Peers and self-assessment, outputs form individual and collaborative work

Course-6B**: Mobile Application Development: Lab (Practical) Syllabus (15 Hrs.)**

(Since, the proposed SECs are connected to Computer Programming/Software Tools and Skill enhancement, the students need to get exposure on the syllabus content by practicing on the computer even though there is no formal assignment of credits and laboratory hours for practical sessions. So, as part of the Co-curricular activities and continuous assessment, students should be engaged in practicing on computer for at least 15 hours per semester.)

Outcomes:

1. Understand the android platform
2. Design and implementation of various mobile applications

Experiments:

1. Demonstrate mobile technologies and devices
2. Demonstrate Android platform and applications overview
3. Working with texts , shapes, buttons and lists
4. Develop a calculator application
5. Implement an application that creates a alarm clock

Note: The list of experiments need not be restricted to the above list. *Detailed list of Programming/software tool based exercises can be prepared by the concerned faculty members.*

A.P. State Council of Higher Education
Semester-wise Revised Syllabus under CBCS, 2019-20
Four year B.A./B.Com.(Hons) (Hons) Semester –V (from 2022-23)
Course Code: Max Marks: 100
Domain Subject: **Computer Applications for Arts/Commerce**
IV Year B. Sc./B.Com (Hons) – Semester – V
Course-**7B**: **CYBER SECURITY AND MALWARE ANALYSIS**
(Skill Enhancement Course (Elective), 4 credits)

COURSE OUTCOMES:
Upon successful completion of this course, students should have the knowledge and skills to

1. Understand the computer networks, networking tools and cyber security
2. Learn about NIST Cyber Security Framework
3. Understand the OWASP Vulnerabilities
4. Implement various Malware analysis tools
5. Understand about Information Technology act 2000

Syllabus: (Total hours: 75 including Theory, Practical, Training, Unit tests etc.)

UNIT 1: Introduction to Networks & cyber security 14hrs

- Computer Network Basics
- Computer network types
- OSI Reference model
- TCP/IP Protocol suite
- Difference between OSI and TCP/IP
- What is cyber, cyber-crime and cyber-security
- All Layer wise attacks
- Networking devices: router, bridge, switch, server, firewall
- How to configure: router
- How to create LAN

UNIT 2: NIST Cyber security framework 12hrs

- Introduction to the components of the framework
- Cyber security Framework Tiers
- What is NIST Cyber security framework
- Features of NIST Cyber security framework
- Functions of NIST Cyber security framework
- Turn the NIST Cyber security Framework into Reality/ implementing the framework

UNIT 3: OWASP **12hrs**

- What is OWASP?
- OWASP Top 10 Vulnerabilities
    - ❖ Injection
    - ❖ Broken Authentication
    - ❖ Sensitive Data Exposure
    - ❖ XML External Entities (XXE)
    - ❖ Broken Access Control
    - ❖ Security Misconfiguration
    - ❖ Cross-Site Scripting (XSS)
    - ❖ Insecure Deserialization
    - ❖ Using Components with Known Vulnerabilities
    - ❖ Insufficient Logging and Monitoring
- Web application firewall

UNIT 4: MALWARE ANALYSIS **12hrs**

- What is malware
- Types of malware
    - ❖ Key loggers
    - ❖ Trojans
    - ❖ Ran some ware
    - ❖ Rootkits
- Antivirus
- Firewalls
- Malware analysis
    - ❖ VM ware
    - ❖ How to use sandbox
    - ❖ Process explorer
    - ❖ Process monitor

UNIT 5: CYBER SECURITY: Legal Perspectives **10hrs**

- Cybercrime and the legal landscape around the world
- Indian IT ACT 2000 --Cybercrime and Punishments
- Challenges to Indian law and cybercrime scenario in India

Textbooks:

1. Computer Networks | Fifth Edition | By Pearson (6th Edition)|Tanenbaum, Feamster & Wetherill
2. Computer Networking | A Top-Down Approach | Sixth Edition | By Pearson | Kurose James F. Ross Keith W.
3. Cyber Security by Sunit Belapure, Nina Godbole|Wiley Publications
4. TCP/IP Protocol Suite |Mcgraw-hill| Forouzan|Fourth Edition

Website References:

- https://csrc.nist.gov/Projects/cybersecurity-framework/nist-cybersecurity-framework-a-quick-start-guide
- https://owasp.org/www-project-top-ten/
- https://owasp.org/www-project-juice-shop/

Co-Curricular Activities:

(Co-curricular activities shall not promote copying from textbook or from others work and shall encourage self/independent and group learning)

A. Measurable

1. Assignments (in writing and doing forms on the aspects of syllabus content and outside the syllabus content. Shall be individual and challenging)
2. Student seminars (on topics of the syllabus and related aspects (individual activity))
3. Quiz (on topics where the content can be compiled by smaller aspects and data (Individuals or groups as teams))
4. Study projects (by very small groups of students on selected local real-time problems pertaining to syllabus or related areas. The individual participation and contribution of students shall be ensured (team activity)

B. General

1. Group Discussion
2. Try to solve MCQ's available online.

RECOMMENDED CONTINUOUS ASSESSMENT METHODS:

Some of the following suggested assessment methodologies could be adopted;

1. The oral and written examinations (Scheduled and surprise tests),
2. Closed-book and open-book tests,
3. Practical assignments and laboratory reports,
4. Observation of practical skills,
5. Individual and group project reports.
6. Efficient delivery using seminar presentations,
7. Viva-Voce interviews.
8. Computerized adaptive testing, literature surveys and evaluations,
9. Peers and self-assessment, outputs form individual and collaborative work

Course-7B: Cyber Security and Malware Analysis; Lab (Practical) Syllabus (15 Hrs.)

(Since, the proposed SECs are connected to Computer Programming/Software Tools and Skill enhancement, the students need to get exposure on the syllabus content by practicing on the computer even though there is no formal assignment of credits and laboratory hours for practical sessions. So, as part of the Co-curricular activities and continuous assessment, students should be engaged in practicing on computer for at least 15 hours per semester.)

Experiments:

1. Configure a LAN by using a switch
2. Configure a LAN by using Router
3. Perform the packet sniffing mechanism by download the “wire shark” tool and extract the packets
4. Perform an SQL Injection attack and its preventive measure to avoid Injection attack

Note: The list of experiments need not be restricted to the above list. *Detailed list of Programming/software tool based exercises can be prepared by the concerned faculty members.*

A.P. State Council of Higher Education
Semester-wise Revised Syllabus under CBCS, 2019-20
Four year B.A. /B.Com. (Hons)Semester –V (from 2022-23)
Domain Subject: **Computer Applications for Arts/Commerce**

Course Code: Max Marks: 100

Course-**6C**: **E– COMMERCE APPLICATION DEVELOPMENT**

(Skill Enhancement Course (Elective), 4 credits)

Learning Outcomes:

Upon successful completion of the course, a student will be able to:

1. To apply in an integrative and summative fashion the students' knowledge in all fields of business studies by drafting a website presence plan.
2. To understand the factors needed in order to be a successful in ecommerce
3. To gain the skills to bring together knowledge gathered about the different components of building a web presence
4. To critically think about problems and issues that might pop up during the establishment of the web presence
5. To apply Word Press as a content management system (CMS), Plan their website by choosing colour schemes, fonts, layouts, and more

Syllabus: (Total hours: 75 including Theory, Practical, Training, Unit tests etc.)

Unit-1: **(10h)**

1.1 Introduction to E– commerce:
1.2 Meaning and concept – E– commerce
1.3 E– commerce v/s Traditional Commerce
1.4 E– Business & E– Commerce – History of E– Commerce
1.5 EDI – Importance, features & benefits of E– Commerce
1.6 Impacts, Challenges & Limitations of E– Commerce

Unit-2: **(12h)**

2.1 Business models of E – Commerce: Business to Business
2.1.2 Business to customers
2.1.3Customers to Customers
2.1.4 Business to Government
2.1.5 Business to Employee
2.2 Influencing factors of successful E– Commerce
2.3 Architectural framework of Electronic Commerce
2.4 Web based E Commerce Architecture.
2.5 Internet Commerce

Unit-3: **(12h)**

3.1 Electronic data Interchange
3.2 EDI Technology
3.3 EDl- Communications

3.4 EDI Agreements
3.5 E– Commerce payment system.
3.6 Digital Economy

Unit -4: **(13h)**

4.1 A Page on the web - HTML Basics
4.2 Client Side scripting -JAVA SCRIPT basics
4.3 Server side Scripting- PHP basics.

Unit-5: **(13h)**

5.1 Logging in to Your Word press Site
5.2 word press dash board
5.3 creating your first post
5.4 adding photos and images
5.5 creating hyper link
5.6 adding categories and tags

Textbooks:

1. Turban, Rainer, and Potter, Introduction to E-Commerce, second edition, 2003
2. H. M. Deitel, P. J. Deitel and T. R. Nieto, E-Business and E-Commerce: How to Programe, Prentice hall, 2001
3. WordPress All-in-One For Dummies -written by Lisa Sabin Wilson with contributions by Michael Torbert, Andrea Rennick, Cory Miller, and Kevin Palmer

Reference Books:

1. Elias. M. Awad, “Electronic Commerce", Prentice-Hall of India Pvt Ltd.
2. Ravi Kalakota, Andrew B. Whinston, "Electronic Commerce-A Manager's guide", Addison-Wesley
3. https://w3cschools.com
4. David Whiteley, E-Commerce: Strategy, Technologies and Applications, Tata McGraw Hill.

RECOMMENDED CO-CURRICULAR ACTIVITIES: (Co-curricular activities shall not promote copying from textbook or from others work and shall encourage self/independent and group learning)

A. Measurable

1. Assignments (in writing and doing forms on the aspects of syllabus content and outside the syllabus content. Shall be individual and challenging)
2. Student seminars (on topics of the syllabus and related aspects (individual activity))
3. Quiz (on topics where the content can be compiled by smaller aspects and data (Individuals or groups as teams))

B. General

1. Group Discussion
2. Others

RECOMMENDED CONTINUOUS ASSESSMENT METHODS:

Some of the following suggested assessment methodologies could be adopted;

1. The oral and written examinations (Scheduled and surprise tests),
2. Closed-book and open-book tests,
3. Efficient delivery using seminar presentations,
4. Computerized adaptive testing, literature surveys and evaluations,
5. Peers and self-assessment, outputs form individual and collaborative work

Course-6C: E– Commerce Application Development; Lab (Practical) Syllabus (15 Hrs)

(Since, the proposed SECs are connected to Computer Programming/Software Tools and Skill enhancement, the students need to get exposure on the syllabus content by practicing on the computer even though there is no formal assignment of credits and laboratory hours for practical sessions. So, as part of the Co-curricular activities and continuous assessment, students should be engaged in practicing on computer for at least 15 hours per semester.)

Case study of e –commerce

1. Home page design of web site
2. Validation using PHP
3. Implement Catalogue design
4. Implement Access control mechanism(eg: username and password)
5. Case study on business model of online E-Commerce store

Note: The list of experiments need not be restricted to the above list. *Detailed list of Programming/software tool based exercises can be prepared by the concerned faculty members.*

A.P. State Council of Higher Education
Semester-wise Revised Syllabus under CBCS, 2019-20
Four year B.A. /B.Com. (Hons)Semester –V (from 2022-23)

Domain Subject: **Computer Applications for Arts/Commerce**

Course Code: Max Marks: 100

Course-**7C: REAL TIME GOVERNANCE SYSTEM (RTGS)**

(Skill Enhancement Course (Elective), 4 credits)

COURSE OUTCOMES:

Upon successful completion of this course, students will have the knowledge and skills to

1. Understand the terms regarding Governance, E-Governance and RTGS
2. Learn about E-Governance Infrastructure
3. Understand the E-Governance implementation in several countries
4. Understand the E-Governance implementation in several Indian states
5. Understand the applications of RTG

Syllabus: (Total hours: 75 including Theory, Practical, Training, Unit tests etc.)

UNIT 1: Introduction to E-Governance 12hrs

- Government, Governance and Good Governance
- What is E-Governance or Electronic Governance?
- E-Government and E-Governance: A conceptual Analysis
    - ❖ Objectives
    - ❖ Components
    - ❖ application domains
    - ❖ four phase model
    - ❖ implementing E-Governance
    - ❖ issues while implementing E-Governance
    - ❖ Opportunities and challenges
- Types of E-Governance
- What is Real-Time Governance (RTG)
- Real Time Governance Society (RTGS)

UNIT 2: E-Governance Infrastructure 14hrs

- Data Systems infrastructure
    - ❖ Executive Information Systems
    - ❖ Management Information Systems
    - ❖ Knowledge Management Systems

- ❖ Transaction Processing Systems
- Legal Infrastructural preparedness
  - ❖ IT Act 2000
  - ❖ Challenges to Indian law and cybercrime scenario in India
  - ❖ Amendments of the Indian IT Act
- Institutional Infrastructural preparedness
  - ❖ Internet
  - ❖ intranet
  - ❖ extranet
- Human Infrastructural preparedness
  - ❖ Top-level management
  - ❖ Middle-level management
  - ❖ Low-level management
- Technological Infrastructural preparedness
  - ❖ Information and communications technology
  - ❖ Data Warehousing
  - ❖ Cloud Computing

UNIT 3: E-Governance: Country Experience **12hrs**

- INDIA
- US
- UK
- AUSTRALIA
- DUBAI

UNIT 4: E-Governance in India **12hrs**

- Andhra Pradesh
- Karnataka
- Kerala
- Uttar Pradesh
- Madhya Pradesh
- West Bengal
- Gujarat

UNIT 5: Latest Applications in Real Time Governance **10hrs**

- Agriculture
- Rural Development
- Health care
- Education
- Tourism
- Commerce and Trade

Textbooks:

1. E-Governance: concepts and case studies| CSR Prabhu| Prentice-Hall|
2. E-Governance| Niranjanpani, Sanhari Mishra | Himalaya Publishing House

Website References:

1. http://www.egov4dev.org/success/case/
2. https://vikaspedia.in/e-governance/resources-for-vles
3. https://altametrics.com/en/information-systems/information-system-types.html
4. https://core.ap.gov.in/CMDashBoard/Index.aspx

Co-Curricular Activities:

(Co-curricular activities shall not promote copying from textbook or from others work and shall encourage self/independent and group learning)

A. Measurable

1. Assignments (in writing and doing forms on the aspects of syllabus content and outside the syllabus content. Shall be individual and challenging)
2. Student seminars (on topics of the syllabus and related aspects (individual activity))
3. Quiz (on topics where the content can be compiled by smaller aspects and data (Individuals or groups as teams))
4. Study projects (by very small groups of students on selected local real-time problems pertaining to syllabus or related areas. The individual participation and contribution of students shall be ensured (team activity)

B. General

1. Group Discussion
2. Try to solve MCQ's available online.

RECOMMENDED CONTINUOUS ASSESSMENT METHODS:

Some of the following suggested assessment methodologies could be adopted;

10. The oral and written examinations (Scheduled and surprise tests),
11. Closed-book and open-book tests,
12. Practical assignments and laboratory reports,
13. Observation of practical skills,
14. Individual and group project reports.
15. Efficient delivery using seminar presentations,
16. Viva-Voce interviews.
17. Computerized adaptive testing, literature surveys and evaluations,
18. Peers and self-assessment, outputs form individual and collaborative work

Course-7C: Real Time Governance System (RTGS); Lab (Practical) Syllabus (15 Hrs)

(Since, the proposed SECs are connected to Computer Programming/Software Tools and Skill enhancement, the students need to get exposure on the syllabus content by practicing on the computer even though there is no formal assignment of credits and laboratory hours for practical sessions. So, as part of the Co-curricular activities and continuous assessment, students should be engaged in practicing on computer for at least 15 hours per semester.)

Note: Here the students have to gather the details in computer lab by surfing several websites & Google Search Engines and submit the report to the class/lab instructor before leaving the lab.

Week 1: Write a Report on the role of Nationwide Networking in E-Governance

Week 2: Write a Report on SETU: A Citizen Facilitation Centre in India, regarding it's successful or failure journey.

Week 3: Write a Report on National Cyber Security Policy, how it is useful to Indian citizens.

Week 4: Write a Report on mee-seva/Village Secretariat/Ward secretariat, a new paradigm in citizen services.

Week 5: Write a Report on how Andhra Pradesh is implementing RTGS in Agriculture.

Week 6: Write a Report on how Andhra Pradesh is implementing RTGS in social welfare schemes

Week 7: Write a Report on how Andhra Pradesh is implementing RTGS in waste lands, agricultural lands and house properties.

Week 8: Write a Report on Electronic Birth Registration in any one state of our country.

Note: The list of experiments need not be restricted to the above list. *Detailed list of Programming/software tool based exercises can be prepared by the concerned faculty members.*

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A.P. State Council of Higher Education
Semester-wise Revised Syllabus under CBCS, 2019-20

Four-year B.A. /B.Com. (Hons) Semester-V (from 2022-23)
Domain Subject: **Computer Applications for Arts/Commerce**

Course Code: Max Marks: 100

Course-**6D: MULTIMEDIA TOOLS AND APPLICATIONS**
(Skill Enhancement Course (Elective), 4 credits)

Learning Outcomes:

Upon successful completion of the course, a student will be able to:

1. Gain knowledge on the concepts related to Multimedia.
2. Understand the concepts like image data representation and colour modes.
3. Understand the different types of video signals and digital audio.
4. Know about multimedia data compression types and audio compression standards
5. Know about basic video compression techniques.

Syllabus: (Total hours: 75 including Theory, Practical, Training, Unit tests etc.)

Unit-1: Introduction to multimedia: 12Hr

1. What is Multimedia?
2. Components of Multimedia System
3. Multimedia and Hypermedia
4. Multimedia Authoring metaphors
5. Multimedia Production
6. Multimedia Presentation
7. Some Technical Design Issues
8. Automatic Authoring

Unit-2: Image Data Representations and color models: 12Hr

1. Color science Human vision Image data types:
2. 2.Black & white images
   2.1 1-bit images (Binary image)
   2.2 8 -bit (Gray -level images)
3. Color images
   3.1 24-bit color images
   3.2 8-bit color images
4. Color models

Unit-3: Fundamental concepts in video: 12Hr

1. Types of Video Signals
   1.1 Analog Video
   1.2 Digital Video

Basics of Digital Audio:

2. What is Sound?

2.1 Digitization of Sound

2.2 Quantization and Transmission of Audio

2.2.1 Pulse code modulation

2.2.2 Differential coding of audio

2.2.3 Predictive coding

Unit-4:

Multimedia Data Compression: 13Hr

1. Introduction

1.1 Basics of Information Theory

1.2 Lossless Compression Algorithms

1.2.1 Fix-Length Coding

1.2.2 Run-length coding

1.2.4 Dictionary-based coding

1.3. Variable Length Coding

1.3.1 Huffman Coding Algorithm

Audio Compression standards:

2. Introduction

2.1 Psychoacoustics model

2.2 MPEG Audio

Unit-5: Basic Video Compression Techniques: 11Hr

1. Introduction to Video compression

2. Video compression standard H.261

3. Video compression standard MPEG-1

Text Books:

Fundamentals of Multimedia by Ze-Nian Li & Mark S. Drew. Publisher: Prentice Hall

Reference Books:

1. An introduction to digital multimedia by Savage, T. M. and Vogel, K. E. 2008.

2. Digital Multimedia by Nigel Chapman & Jenny Chapman. 2009.

Online Resources: https://ksuit342.wordpress.com/lectuers/

https://www.tutorialspoint.com/multimedia

Recommended Co-Curricular Activities (participation: total 15 weeks):

(Co-curricular activities shall not promote copying from textbook or from others work and shall encourage self/independent and group learning)

A. Measurable

1. Assignments (in writing and doing forms on the aspects of syllabus content and outside the syllabus content. Shall be individual and challenging)

2. Student seminars (on topics of the syllabus and related aspects (individual activity))

3. Quiz (on topics where the content can be compiled by smaller aspects and data (Individuals or groups as teams))

4. Study projects (by very small groups of students on selected local real-time problems pertaining to syllabus or related areas. The individual participation and contribution of students shall be ensured (team activity))

B. **General**

1. Group Discussion
2. Others

RECOMMENDED CONTINUOUS ASSESSMENT METHODS:

Some of the following suggested assessment methodologies could be adopted;

1. The oral and written examinations (Scheduled and surprise tests),
2. Closed-book and open-book tests,
3. Programming exercises,
4. Observation of practical skills,
5. Efficient delivery using seminar presentations,
6. Viva voce interviews.
7. Computerized adaptive testing, literature surveys and evaluations,
8. Peers and self-assessment, outputs form individual and collaborative work

Suggested Software

1) Image Editing – GIMP
2) Audio Editing – Audacity
3) Video Editing – video pad
4) NCH software tools.

Course-6D**: Multimedia Tools and Applications; Lab (Practical) Syllabus (15 Hrs.)**

(Since, the proposed SECs are connected to Computer Programming/Software Tools and Skill enhancement, the students need to get exposure on the syllabus content by practicing on the computer even though there is no formal assignment of credits and laboratory hours for practical sessions. So, as part of the Co-curricular activities and continuous assessment, students should be engaged in practicing on computer for at least 15 hours per semester.)

1. Editing images using GIMP
2. Improve the Quality of your Image in GIMP
3. Create an impressive background in GIMP
4. Applying Shadow & Highlight effects in images
5. Black& white and color photo conversion.

Note: The list of experiments need not be restricted to the above list. *Detailed list of Programming/software tool based exercises can be prepared by the concerned faculty members.*

A.P. State Council of Higher Education
Semester-wise Revised Syllabus under CBCS, 2019-20
Four-year B.A./B.Com (Hons) Semester-V (from 2022-23)

Domain Subject: **Computer Applications for Arts/Commerce**

Course Code: Max Marks: 100

Course-**7D: DIGITAL IMAGING**

(Skill Enhancement Course (Elective), 4 credits)

Learning Outcomes:

Upon successful completion of the course, a student will be able to:

1. Gain knowledge about Types of Graphics, Types of Objects and Types of video editing tools
2. Show their skills in editing and altering photographs for through a basic understanding of the tool box.
3. Gain knowledge in using the layers.
4. Gain knowledge in using the selection tools, repair tools.
5. Gain knowledge in using selection tools, applying filters and can show their skills.

Syllabus: (Total hours: 75 including Theory, Practical, Training, Unit tests etc.)

UNIT-I **12 Hrs**

1. Types of Graphics
    1.1 Raster vs Vector Graphics
2. Types of Objects
    2.1 Audio formats
    2.2 Video formats
    2.3 Image formats
    2.4 Text document formats
3. Types of video editing
4. Different color modes.
5. Image Scanner
    5.1 Types of Image Scanners

UNIT-II **12 Hrs**

1. What is GIMP?
2. GIMP tool box window
3. Layers Dialog
4. Tool Options Dialog
5. Image window
6. Image window menus

UNIT-III **12 Hrs**

Improving Digital Photos

1.1 Opening files

1.1.1 Rescaling saving files

1.2. Cropping

1.3. Brightening & Darkening

1.4. Rotating

1.5. Sharpening

Introduction to layers

2. What is layer?

2.1. Using layer to add text

2.2. Using move tool

2.3. Changing colors

2.4. Simple effects on layers

2.5 Performing operations on layers

2.7 Using layers to copy and paste

UNIT-IV **12 Hrs**

Drawing:

1.1 Drawing lines and curves

1.2 Changing colors and brushes

1.3 Erasing

1.4 Drawing rectangles, Circles and other shapes

1.6 Outlining and filling regions

1.7 Filling with patterns and gradients

Selection:

2.1 Working with selections

2.2 Select by color and fuzzy

2.3 Select Bezier paths

2.5 Modifying selections with selection modes

UNIT-V **12 Hrs**

Erasing and Touching Up:

1.1 Dodge and burn tool

1.3 Clone tool

1.4 Sharpening using convolve tool

1.5 Correcting Color Balance

Filters:

2.1 Filters

2.1.1 Blur

2.1.2 Enhance

2.1.3 Noise Filters

References:

Textbook: Beginning GIMP from Novice to professional by Akkana Peck,
Second Edition, Apress

Recommended Co-Curricular Activities (participation: total 15 weeks):
(Co-curricular activities shall not promote copying from textbook or from others work and shall encourage self/independent and group learning)

A. Measurable

1. Assignments (in writing and doing forms on the aspects of syllabus content and outside the syllabus content. Shall be individual and challenging)
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3. Quiz (on topics where the content can be compiled by smaller aspects and data (Individuals or groups as teams))
4. Study projects (by very small groups of students on selected local real-time problems pertaining to syllabus or related areas. The individual participation and contribution of students shall be ensured (team activity))

B. **General**

1. Group Discussion
2. Others

RECOMMENDED CONTINUOUS ASSESSMENT METHODS:

Some of the following suggested assessment methodologies could be adopted;
1. The oral and written examinations (Scheduled and surprise tests),
2. Closed-book and open-book tests,
3. Programming exercises,
4. Observation of practical skills,
5. Efficient delivery using seminar presentations,
6. Viva voce interviews.
7. Computerized adaptive testing, literature surveys and evaluations,
8. Peers and self-assessment, outputs form individual and collaborative work

Course-7D**: DIGITAL IMAGING; Lab (Practical) Syllabus (15 Hrs.)**

(Since, the proposed SECs are connected to Computer Programming/Software Tools and Skill enhancement, the students need to get exposure on the syllabus content by practicing on the computer even though there is no formal assignment of credits and laboratory hours for practical sessions. So, as part of the Co-curricular activities and continuous assessment, students should be engaged in practicing on computer for at least 15 hours per semester.)

1. Designing a Visiting card
2. Design Cover page of a book
3. Paper add for calling tenders
4. Design a Pamphlet
5. Brochure designing
6. Titles designing
7. Custom shapes creation
8. Image size modification
9. Background changes
10. Texture and patterns designing

Note: The list of experiments need not be restricted to the above list. *Detailed list of Programming/software tool based exercises can be prepared by the concerned faculty members.*

Draft Syllabus prepared by:

1. Dr. M. Babu Reddy, Krishna University, Machilipatnam
2. Mr.Kavuri Sridhar, PB Sidhartha College of Arts & Science, Vijayawada
3. Mr.SAB Nehru, Andhra Layola College, Vijayawada

ప్రభుత్వ డిగ్రీ కళాశాల-కనిగిరి

GOVERNMENT DEGREE COLLEGE-KANIGIRI

PRAKASAM DISTRICT, AP - 523230

DEPARTMENT OF COMPUTER APPLICATIONS

STUDENTS' PROGRESSION TO HIGHER EDUCATION

ACADEMIC YEAR::2022-23

D.HARI NARAYANA

LECTURER IN COMPUTERS

DEPARTMENT OF COMPUTER APPLICATIONS

STUDENTS'PROGRESSIONTOHIGHEREDUCATION

One of the Government Degree College-Kanigiri students has been selected for **Acharya Nagarjuna University for the Academic Year 2022-23**, who is passed out from the college in 2022-23 Academic Year.

Chaganti Naresh ,who pursued B.Com(Computer Applications) has completed his course successfully and appeared for Sri Krisnadevaraya University entrance test in APICET-2023. He applied for Master Of Business Administration (MBA). Mr. Ch.Naresh got 21392th Rank overall, and he got 72 marks.

PARTICULARS OF STUDENTS DETAILS PROGRESSED TO HIGHER EDUCATION

SNO	STUDENTPARTICULARS	
1	NameoftheStudent	Chaganti Naresh
2	CoursePursued	B.Com(Computer Applications)
3	PassPercentage	75%
4	PostGraduationSubject	Master of Business Administration
5	UniversitySelectedfor	Sri Krishnadevaraya University
6	RankObtained	21392
7	Registration No :	5310353438

Principal Dr.J.Usha Rani and incharge of Department of Computer Applications Faculty Members are appreciated Chaganti Naresh for his efforts towards progressing to higher education and obtaining a seat in such reputed universities like Acharya Nagarjuna University. Principal Dr.J.Usha Rani garu wished forthe student's future endeavors.

AP ICET - 2023

Integrated Common Entrance Test

(Conducted by Sri Krishnadevaraya University, Anantapur on behalf of APSCHE)

(Information as furnished by the Candidate)

Candidate's Name	:	CHAGANTI NARESH
Father's Name	:	CHAGANTI NARASIMHULU
Mother's Name	:	CHAGANTI OBULAMMA
Registration No.	:	5310353438
Date of Birth	:	05/06/2002
Address	:	4-91 DIRISAVANCHA KANIGIRI PRAKASAM ANDHRA PRADESH - 523245

Category
BC_D

Gender
MALE

Local Status
AU

Scribe Required
NO

Hall Ticket Number

5274020181

Ch. Naresh

Test Date & Time	Test Centre
24-05-2023 **Wednesday** **03:00 PM TO 05:30 PM**	7402 - DR.SAMUEL GEORGE INSTITUTE OF ENGINEERING & TECHNOLOGY GEORGE TOWN,DARIMADUGU V, PRAKASAM DIST, MARKAPUR, ANDHRA PRADESH, INDIA, 523316

Signature of the Candidate
(To be Signed in the presence of the Invigilator)

P. Muralidhar

CONVENER

IMPORTANT INSTRUCTIONS TO THE CANDIDATE

1. Please check the details printed in the Hall Ticket carefully for your Name, Date of Birth, Gender and Category. In case of any discrepancy, communicate to the AP ICET - 2023 help line centre immediately for necessary action.
2. Hall ticket shall be shown at the Entrance of the Test Centre and also in the Examination Hall, failing which the candidates will not be allowed to write the test.
3. Candidates will be permitted to appear for the examination only after their credentials are verified by the centre officials.
4. The candidate shall carry into the Examination hall (i) Black/Blue Ball Point Pen (ii) Hall Ticket (iii) ID Card.
5. Candidates shall bring any one of Proof of Identification viz. Passport/ PAN Card/ Voter ID/ Aadhar Card/ Driving Licence etc.
6. Candidate will be permitted into the Examination Hall from 07:30 AM to 09:00 AM for FN Session and 01:30 PM to 03:00 PM for AN Session for identification.
7. Candidate will not be permitted into the Examination Hall once the test commences (i.e.09:00 AM for FN Session and 03:00 PM for AN Session) and will not be allowed to leave the Examination Hall till the END of the Examination (i.e.11:30 AM for FN Session and 05:30 PM

for AN Session). **Candidates will not be allowed into the examination hall even if they are late by one minute.**

8. Listen the instructions announced by the invigilator carefully. After login-in read the instructions regarding the list of symbols related answering online examination displayed on the screen carefully. **No clarifications or doubts related to the questions of the examination paper will be entertained during the examination.**
9. In case you detect any hardware or software problems with the computer system provided, please raise your hand and talk to the Invigilators. The problem shall be rectified immediately. In case the problem is not rectified within reasonable time, the system will be changed for you. Time does not tick forward while this replacement is going on so no time will be lost for the candidate.
10. The check-in procedure inside the Examination hall includes capturing of biometric information (your photo and left hand thumb impression). This is a security feature which will allow AP ICET - 2023 authorities to verify your identity and also to avoid impersonation. Therefore, you are advised not to apply any external materials like Mehanadi, Ink etc. on Hands/Feet.
11. Carrying of **Calculators, Mathematical/ Log Tables, Pagers, Cell Phones, Watches (all types), Large Spectacles, any other Electronic Gadgets and loose sheets of paper** into the examination hall is **strictly prohibited.**
12. Adoption of any kind of unfair means and any act of impersonation during the time of test will render the applicant liable for invalidation of his/her Examination. Further he/she will forfeit the claim of appearing for the test and will make him/her liable for criminal action.
13. There may not be a guaranteed security facility for safe-keeping of your valuable devices or personal belongings outside the examination hall.
14. Issue of Hall Ticket and appearance at the test does not automatically entitle the candidate for admission in to a College.
15. No traveling expenses will be paid for the journey to take up the test.
16. Blank papers will be provided for rough work in the examination hall. Candidates will not be allowed to leave the examination center without handing over the rough sheets to the invigilator concerned after the end of the examination.
17. Contact the center chief Superintendent / Invigilator in the room for any technical assistance, first aid, emergency or any other information during the course of examination if required.
18. Hall Ticket must be preserved till the time of admission into the college.
19. Any information for the student can be obtained from website only.

(P.T.O)

TEST CENTER ROUTE MAP :

AP ICET - 2023 RANK CARD

(Conducted by Sri Krishnadevaraya University, Anantapur on behalf of APSCHE)

Candidate's Name	:	**CHAGANTI NARESH**
Father's Name	:	CHAGANTI NARASIMHULU
Mother's Name	:	CHAGANTI OBULAMMA
Address	:	4-91 , DIRISAVANCHA , KANIGIRI , PRAKASAM , ANDHRA PRADESH - 523245

Hall Ticket Number
5274020181
Local Area
AU
Category
BC_D
Gender
MALE

Ch. Naresh

Performance in AP ICET	**Section (Max.)**	**Analytical Ability - A (75)**	**Communication Ability - B (70)**	**Mathematical Ability - C (55)**	**Total (A+B+C)**
	Normalized Marks	25.0579	28.4946	17.6974	71.2498

Rank in Words	**TWO * ONE * THREE * NINE * TWO**	**Rank in Figure**	**21392**

Convener

ANDHRA PRADESH STATE COUNCIL OF HIGHER EDUCATION

Programme: B.Com. Computer Applications (Major)

w.e.f. AY 2023-24

COURSE STRUCTURE

Year	Semester	Course	Title of the Course	No. of Hrs /Week	No. of Credits
I	I	1	Fundamental of Commerce	4	4
		2	Business Organisation	4	4
	II	3	Financial Accounting	3	3
			Financial Accounting Practical Course	2	1
		4	Office Automation Tools	3	3
			Office Automation Tools Practical Course	2	1
II	III	5	Advanced Accounting	3	3
			Advanced Accounting Practical Course	2	1
		6	Income Tax	3	3
			Income Tax Practical Course	2	1
		7	E Commerce & Web designing	3	3
			E Commerce & Web designing Practical Course	2	1
		8	Digital Marketing	3	3
			Digital Marketing Practical Course	2	1
	IV	9	Corporate Accounting	3	3
			Corporate Accounting Practical Course	2	1
		10	Cost & Management Accounting	3	3
			Cost & Management Accounting Practical Course	2	1
		11	DBMS with Oracle	3	3
			DBMS with Oracle Practical Course	2	1
III	V	12	Advertisement Corporate Accounting (OR) Advertisement and Media Planning	3	3
			Advertisement Corporate Accounting (OR) Advertisement and Media Planning Practical Course	2	1

Year	Semester	Course	Title of the Course	No. of Hrs /Week	No. of Credits
		13	Stock Markets (OR) GST Procedures and Practices	3	3
			Stock Markets (OR) GST Procedures and Practices Practical Course	2	1
		14	Business Analytics (OR) Cyber Security	3	3
			Business Analytics (OR) Cyber Security Practical Course	2	1
		15	Mobile Applications Development (OR) Block Chain Technology	3	3
			Mobile Applications Development (OR) Block Chain Technology Practical Course	2	1
	VI	Semester Internship/Apprenticeship with 12 Credits			
IV	**VII**		Courses will be available in due course of time		
	VIII		Courses will be available in due course of time		

SEMESTER-I

COURSE 1: FUNDAMENTALS OF COMMERCE

Theory Credits: 4 4 hrs/week

Learning Objectives:
The objective of this paper is to help students to acquire conceptual knowledge of the Commerce, Economy and Role of Commerce in Economic Development. To acquire Knowledge on Accounting and Taxation.

Learning Outcomes:
At the end of the course, the student will able to
Identify the role commerce in Economic Development and Societal Development. Equip with the knowledge of imports and exports and Balance of Payments. Develop the skill of accounting and accounting principles. They acquire knowledge on micro and micro economics and factors determine demand and supply. An idea of Indian Tax system and various taxes levied on in India. They will acquire skills on web design and digital marketing.

Unit 1: Introduction: Definition of Commerce – Role of Commerce in Economic Development - Role Commerce in Societal Development. Imports and Exports, Balance of Payments. World Trade Organization.

Unit 2: Economic Theory: Macro Economics – Meaning, Definition, Measurements of National Income, Concepts of National Income. Micro Economics – Demand and Supply. Elasticity of Demand and Supply. Classification of Markets -Perfect Competition – Characteristics – Equilibrium Price, Marginal Utility.
.
Unit 3: Accounting Principles: Meaning and Objectives Accounting, Accounting Cycle - Branches of Accounting - Financial Accounting, Cost Accounting, Management Accounting. Concepts and Conventions of Accounting – GAAP.

Unit 4: Taxation: Meaning of Tax, Taxation - Types of Tax- Income Tax, Corporate Taxation, GST, Customs & Exercise. Differences between Direct and Indirect Tax – Objectives of Tax- Concerned authorities – Central Board of Direct Taxes (CBDT) and Central Board of Excise and Customs (CBIC).

Unit 5: Computer Essentials: Web Design - Word Press Basics, Developing a Simple Website. Digital Marketing - Social Media Marketing, Content Marketing, Search Engine Optimization (SEO), E-mail Marketing. Data Analytics- Prediction of customer behavior, customized suggestions.

Lab Exercise:

- Build a sample website to display product information.
- Provide wide publicity for your product over social media and e-mail
- Estimate the customer behavior and provide necessary suggestions regarding the products of his interest.

Activities:

- Assignment on GAAP.
- Group Activates on Problem solving.
- Collect date and report the role of Commerce in Economic Development.
- Analyze the demand and supply of a product and make a scheduled based on your analysis, problems on elasticity of demand.
- Identify the Tax and distinguish between Direct Tax and Indirect Tax.
- Assignments and students seminars on Demand function and demand curves
- Quiz Programs
- Assignment on different types of taxes which generate revenue to the Government of India.
- Invited lectures on GST and Taxation system
- Problem Solving Exercises on current economy situation.
- Co-operative learning on Accounting Principles.
- Group Discussions on problems relating to topics covered by syllabus
- Examinations (Scheduled and surprise tests)
- Any similar activities with imaginative thinking beyond the prescribed syllabus

Reference Books:

1. S.P. Jain & K.L Narang, Accountancy - I Kalyani Publishers.
2. R.L. Gupta & V.K. Gupta, Principles and Practice of Accounting, Sultan Chand
3. Business Economics -S.Sankaran, Margham Publications, Chennai.
4. Business Economics - Kalyani Publications.
5. Dr. Vinod K. Singhania: Direct Taxes – Law and Practice, Taxmann Publications.
6. Dr. Mehrotra and Dr. Goyal: Direct Taxes – Law and Practice, SahityaBhavan Publications

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SEMESTER-I

COURSE 2: BUSINESS ORGANIZATION

Theory Credits: 4 4 hrs/week

Learning Objectives:
The course aims to acquire conceptual knowledge of business, formation various business organizations. To provide the knowledge on deciding plant location, plan layout and business combinations.

Learning outcomes:
After completing this course a student will have:
Ability to understand the concept of Business Organization along with the basic laws and norms of Business Organization. The ability to understand the terminologies associated with the field of Business Organization along with their relevance and to identify the appropriate types and functioning of Business Organization for solving different problems. The application of Business Organization principles to solve business and industry related problems and to understand the concept of Sole Proprietorship, Partnership and Joint Stock Company etc.

Unit 1: Business: Concept, Meaning, Features, Stages of development of business and importance of business. Classification of Business Activities. Meaning, Characteristics, Importance and Objectives of Business Organization.. Difference between Industry & Commerce and Business & Profession, Modern Business and their Characteristics.

Unit 2: Promotion of Business: Considerations in Establishing New Business. Qualities of a Successful Businessman. Forms of Business Organization - Sole Proprietorship, Partnership, Joint Stock Companies & Co-operatives and their Characteristics, relative merits and demerits, Difference between Private and Public Company, Concept of One Person Company.

Unit 3: Plant Location and Layout: Meaning, Importance, Factors affecting Plant Location. Plant Layout - Meaning, Objectives, Importance, Types of Layout. Factors affecting Layout. Size of Business Unit - Criteria for Measuring the Size and Factors affecting the Size. Optimum Size and factors determining the Optimum Size.

Unit 4: Business Combination: Meaning, Characteristics, Objectives, Causes, Forms and Kinds of Business Combination. Rationalization: Meaning, Characteristics, Objectives, Principles, Merits and demerits, Difference between Rationalization and Nationalization.

Unit 5: Computer Essentials: Milestones of Computer Evolution – Computer, Block diagram, generations of computer . Internet Basics - Internet, history, Internet Service Providers,

Types of Networks, IP, Domain Name Services, applications. Ethical and Social Implications - Network and security concepts- Information Assurance Fundamentals, Cryptography - Symmetric and Asymmetric, Malware, Firewalls, Fraud Techniques, privacy and data protection

Activities:

- Assignment on business organizations and modern business.
- Group Discussion on factors that influence plan location
- Seminars on different topics related to Business organization
- Case study could be given to present business plan of students choice.
- Identifying the attributes of network (Topology, service provider, IP address and bandwidth of your college network) and prepare a report covering network architecture.
- Identify the types of malwares and required firewalls to provide security.
- Latest Fraud techniques used by hackers.

Reference Books:

1. Gupta, C.B., "Business Organisation", Mayur Publiction, (2014).
2. Singh, B.P., Chhabra, T.N., "An Introduction to Business Organisation & Management", Kitab Mahal, (2014).
3. Sherlekar, S.A. &Sherlekar, V.S, "Modern Business Organization & Management Systems Approach Mumbai", Himalaya Publishing House, (2000).
4. Bhusan Y. K., "Business Organization", Sultan Chand & Sons.
5. Prakash, Jagdish, "Business Organistaton and Management", Kitab Mahal Publishers (Hindi and English)
6. Fundamentals of Computers by V. Raja Raman
7. Cyber Security Essentials by James Graham, Richard Howard, Ryan Olson

SEMESTER-II

COURSE 3: FINANCIAL ACCOUNTING

Theory Credits: 4 4 hrs/week

Learning Objectives

The course aims to help learners to acquire conceptual knowledge of financial accounting, to impart skills for recording various kinds of business transactions and to prepare financial statements.

Learning Outcomes:

At the end of the course, the student will able to identify transactions and events that need to be recorded in the books of accounts. Equip with the knowledge of accounting process and preparation of final accounts of sole trader. Develop the skill of recording financial transactions and preparation of reports in accordance with GAAP. Know the difference between Joint Ventures and Consignment. Critically examine the balance sheets of a sole trader for different accounting periods. Design new accounting formulas & principles for business organizations.

Unit-I: Introduction:- Need for Accounting - Definitions, objectives, functions, - Book keeping and accounting - Advantages and limitations - Accounting concepts and conventions - double entry book keeping - Journal - Posting to Ledger - Preparation of Subsidiary books including Cash book.

Unit-II: **Final Accounts: -** Final accounts - Preparation of Trading account, Profit & loss account and Balance Sheet using computers.

Unit-III: Depreciation: Meaning and Causes of Depreciation - Methods of Depreciation: Straight Line – Written Down Value –Annuity and Depletion Method (including Problems).

Unit-IV: Consignment Accounts: Consignment - Features - Proforma Invoice - Account Sales – Del-credere Commission - Accounting Treatment in the Books of Consigner and Consignee - Valuation of Closing Stock - Normal and Abnormal Losses (including Problems).

Unit-V: Joint Venture Accounts: Joint Venture - Features - Difference between Joint-Venture and Consignment – Accounting Procedure – Methods of Keeping Records–One Vendor Keeps the Accounts and Separate Set off Books Methods (including Problems).

Activities:

- Assignment on Sudsier Books.
- Group Activates on Problem solving in Depreciation Methods.

- Collect and examine the balance sheets of business organizations to study how these are prepared.
- Quiz Programs
- Problem Solving Exercises
- Co-operative learning
- Group Discussions on problems relating to topics covered by syllabus
- Reports on Financial Accounts from local firms.
- Visit a Consignment and Joint venture firms (Individual and Group)
- Collection of proforma of bills and promissory notes
- Examinations (Scheduled and surprise tests)
- Any similar activities with imaginative thinking beyond the prescribed syllabus

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Reference Books:

1. S.P. Jain & K.L Narang, Accountancy, Kalyani Publishers.
2. R.L. Gupta & V.K. Gupta, Principles and Practice of Accounting, Sultan Chand
3. T. S. Reddy and A. Murthy - Financial Accounting, Margham Publications.
4. Ranganatham G and Venkataramanaiah, Financial Accounting, S Chand Publications.
5. Tulsan, Accountancy-I - Tata McGraw Hill Co
6. V.K. Goyal, Financial Accounting Excel Books
7. T.S. Grewal, Introduction to Accountancy, Sultan Chand & Co.
8. Arulanandam, Advanced Accountancy, Himalaya Publishers
9. S.N.Maheshwari&V.L.Maheswari, Advanced AccountancyI,Vikas Publishers.
10.Haneef and Mukherjee, Accountancy-I,Tata McGraw Hill

SEMESTER-II

COURSE 3: FINANCIAL ACCOUNTING

Practical Credits: 1 2 hrs/week

Lab Exercise:

- Creating a Company; Configure and Features settings; Creating Accounting Ledgers and Groups; Stock Items and Groups.
- Vouchers Entry including GST; Generating Reports - Cash Book, Ledger Accounts, Trial Balance, Profit and Loss Account, Balance Sheet.
- Selecting and shutting a Company; Backup, and Restore data of a Company
- Depreciation and Provisions – Preparation of Machinery Accounts and Depreciation Accounts and Provisions Accounts Using Accounting Software / Package or in MS Excel.
- Bills of Exchange - Preparation of Accounts Using Accounting Software / Package.
- Consignment - Creation of company, creation of ledger accounts, creation of accounting vouchers, and display of concern ledger accounts in Accounting Software / Package.
- Joint Venture Accounts - Creation of ledger accounts, creation of accounting vouchers, and display of concern ledger accounts using Accounting Software / Package or in MS Excel.

SEMESTER-II

COURSE 4: OFFICE AUTOMATION TOOLS

Theory Credits: 3 3 hrs/week

Course Objectives:

The objective of this paper is to help students to acquire knowledge on the environment of GUI in Ms-Word and its features. To introduce the fundamentals concepts of using Ms-Word and its features to make it more useful and provide hands on use of Word, Excel and PowerPoint.

Learning Outcomes:

The students will be able:

Understand concept of Word Processor and use its features. To use the advanced features of Ms-Word to make day to day usage easier. To work comfortably with Ms-Excel Environment. To create work sheets and user advanced feature of Excel. To create make presentations and inserting multimedia in them.

Unit 1: Introduction to MS Office & MS Word: MS-Word: Features of MS-Word, MS-Word Window components, working with formatted text, Shortcut keys, Formatting documents: Selecting text, Copying &moving data, Formatting characters, changing cases, Paragraph formatting ,Indents, Drop Caps ,Using format painter, Page formatting, Header & footer, Bullets & numbering, Tabs, Forming tables. Finding & replacing text, go to(F5) command, proofing text (Spell-check, Auto correct),

Case Study:

1. Create a document to write a letter to the DM&HO of the district complaining about Hygienic conditions in your area.
2. Create a document to share your experience of your recent vacation with family.

Unit 2: MS Word Advanced features: Difference between Wizard and Template - Customize the Quick Access Tool Bar – Macros: Purpose – Creating Macro – Using Macro – Storing Macro - ,Inserting pictures: From Computer, Online Pictures – Insert 3d Models - Insert Shapes – Insert Text Box – Insert Equation, Hyperlinks, Tables Insert tables Mail merging, Printing documents, Tables : Insert tables, Mathematical calculations on tables data. Insert Text Box etc.

Case Study:

1. Create a document to send a holiday intimation to all the parents at time about Dasara Vacation.
2. Create a document to create Time Table of you class using tables.

Unit 3: Introduction to MS Excel & Its features: MS-Excel: Excel Features, Spreadsheets, workbooks, creating, saving & editinga workbook, Renaming sheet, cell entries (numbers, labels, and formulas), spell check ,find and replace, Adding and deleting rows and columns Filling series, fill with drag, data sort, Formatting worksheet, Functions and its parts, Some useful Functions in Excel (SUM,AVERAGE,COUNT, MAX,MIN, IF),

Case Study:

1. Create a worksheet with you class marks displaying total, average, top marks in the class and least marks in the class.

Unit 4: Ms-Excel Advanced Features: Cell referencing (Relative, Absolute, Mixed), What-if analysis, Introduction to charts: types of charts, creation of charts, printing a chart, printing worksheet – Sort – Filters – View Menu

Case Study:

1. Prepare a chart with height and weights of you class mates in atleast 3 types of charts.
2. Demonstrate the use of Filter with the attendance data of your class.

Unit 5: Ms-PowerPoint and its Applications: MS-Power Point: Features of Power Point, Uses, components of slide, templates and wizards, using template, choosing an auto layout ,using outlines, adding sub headings, editing text, formatting text, using master slide, adding slides, changing color scheme, changing background and shading, adding header and footer, adding cliparts and auto shapes. Various presentation, Working in slide sorter view(deleting, duplicating, rearranging slides),adding transition and animations to slide show, inserting music or sound on a slide, viewing slide show ,Printing slides.

Case Study:

1. Prepare a presentation with your achievements and experiences in College.

Text Books:

1. Computer Fundamentals–Pradeep.K.Sinha:BPBPublications.
2. Fundamentals of Computers -ReemaThareja, Oxford University Press India

Reference Books:

1. Fundamentals of Computer – V . Rajaraman, Printice Hell of India.
2. Introduction to Computers–Peter Norton McGraw-Hill.

SEMESTER-II

COURSE 4: OFFICE AUTOMATION TOOLS

Practical Credits: 1 2 hrs/week

LIST OF EXPERIMENTS

1) Design a visiting card for Managing Director of a company as per the following specification.
   - Sizeofvisitingcardis3½×2
   - Name of the company with big font
   - Phone number, Fax number and E-mail address with appropriate symbols.
   - Office and Residence address separated by a line

2) Create a table with following columns and display the result ins eparate cells for the following
   - Emp Name, Basic pay, DA, HRA, Total salary.
   - Sort all the employees in ascending order with the name as the key
   - Calculate the totals alary of the employee
   - Calculate the Grand total salary of the employee
   - Finding highest salary and
   - Find lowest salary

3) Prepare an advertisement to a company requiring software professional with the following
   - Attractive page border
   - Design the name of the company using WordArt
   - Use at least one clipart.
   - Give details of the company (use bullets etc)
   - Give details of the Vacancies in each category of employee's (Business manager, Software engineers, System administrators, Programmers, Data entry operators)

   qualification required.

4) Create a letter having following specifications

- Name ofthecompanyonthetopofthepage2withbigfontandgoodstyle
- Phone no, Fax no and E-mail address with symbols.
- Main products manufactured by the company
- Slogans if any should be specify in bold at the bottom

5) Create two pages of curriculum vitae of a graduate with the following specifications

- Table to show qualifications with proper headings
- Appropriate left and right margins
- Format ½pageusingtwo-columnapproachabout yourself
- Name on each page at the top right side
- Page no.in the footer on the right side.

6) Write a macro format documents below

- Linespacing“2”(double)

- Paragraphindentof0.1
- Justification formatting style
- Arial font andBoldof14pt-size

7) Create a letter as the maindocumentandcreate10recordsforthe 10persons

usemailmergetocreateletterforselectedpersonsamong10.

8) Create an electronic spread sheet in which you enter the following decimal numbers and convert the mintooctal, Hexa decimal an d binary numbers and vice-versa.

DecimalNumbers:35,68,95,78,165,225,355,375,465

BinaryNumbers:101,1101,11101,11111,10001,11101111

9) Calculate the net pay of the employees following the conditions below.

	A	B	C	D	E	F	G	H	I
1	Employee	Employe e	Basic	DA	HRA	GPF	Gross	Income	Net
2									

DA:-56%ofthebasicpayifBasicpayisgreaterthan20000 orelse44%.

HRA:-15%oftheBasicpaysubjecttomaximumofRs.4000.
GPF: -10%ofthebasicpay.
INCOMETAX:-10%ofbasicifBasicpayisgreaterthan20000.
Find who is getting highest salary & who is get lowestsalary?

10) The ABC Company shows the sales of different product For5years.CreateBARGraph, 3D

and Pie chart for the following.

A	B	C	D	E	F
S.No.	Year	Pro1	Pro2	Pro3	Pro4
1	1989	1000	800	90	1000
2	1990	800	80	50	900
3	1991	1200	190	40	800
4	1992	400	200	30	1000
5	1993	1800	400	40	1200

11) Create a suitable examination data base and find the sum of the marks (total) of each student and respective, class secured by the student.

Pass: if marks in each subject>=35

Distinction :if average>=75

First class :if average>=60but<75

Second class: if average>=50butlessthan60

Third class: if average>=35butlessthan50

Fail: if marks in any subject<35

12) Enter the following data into the sheet.

Name	Department	Salary
Anusha	Accounts	12000
Rani	Engineering	24000
Lakshmi	Accounts	9000
Purnima	Marketing	20000
Bindu	Accounts	4500
Tejaswi	Accounts	11000
Swetha	Engineering	15000
Saroja	Marketing	45000
Sunitha	Accounts	5600
Sandhya	Engineering	24000
Harika	Marketing	8000

- Extract records for department tin Accounts and Salary > 10000
- Sort the data by salary with the department using “sort commands”.
- Calculate total salary for a ch department using Subtotals

13) Enter the following data in to the sheet..

	Raju	Rani	Mark	Rosy	Ismail	Reshma
English	76	89	43	51	76	87
2ndLang	55	85	78	61	47	33
Maths	65	82	34	58	52	65
Computers	45	91	56	72	49	56
Human Values	51	84	54	64	32	64

Apply the conditional formatting for marks

- 35 below Red
- 35 to 50 Blue
- 51 to 70 Green
- 71 to 100 Yellow

14) Create a presentation using templates.

15) Create a Custom layout or Slide Master for professional presentation.

16) Create a presentation with slide transitions and animation effects.

17) Create a table in PPT and apply graphical representation.

SEMESTER-III

COURSE 5: ADVANCED ACCOUNTING

Theory Credits: 3 3 hrs/week

Learning Objectives

The course aims to help learners to acquire conceptual knowledge of Non-Profit Organizations, understand the accounting procedure of single entry system, hire purchase system and partnership accounts.

Learning Outcomes:

At the end of the course, the student will able to;

Understand the concept of Non-profit organizations and its accounting process, Comprehend the concept of single-entry system and preparation of statement of affairs, Familiarize with the legal formalities at the time of dissolution of the firm, Prepare financial statements for partnership firm on dissolution of the firm and Employ critical thinking skills to understand the difference between the dissolution of the firm and dissolution of partnership.

Unit 1: Accounting for Non Profit Organizations: Non Profit Entities- Meaning - Features of Non-Profit Entities –Provisions as per Sec 8 - Accounting Process- Preparation of Accounting Records - Receipts and Payments Account- Income and Expenditure Account - Preparation of Balance Sheet (including problems).

Unit 2: Single Entry System: Features – Differences between Single Entry and Double Entry – Disadvantages of Single Entry- Ascertainment of Profit and Preparation of Statement of Affairs (including Problems).

Unit 3: Hire Purchase System: Features –Difference between Hire Purchase and Instilment Purchase Systems - Accounting Treatment in the Books of Hire Purchaser and Hire Vendor. (including Problems).

Unit 4: Partnership Accounts-I: Meaning – Partnership Deed - Fixed and Fluctuating Capitals- Accounting Treatment of Goodwill – Admission, Retirement and Death of a Partner (including problems).

Unit 5: Partnership Accounts-II: Dissolution of a Partnership Firm – Application of Garner v/s Murray Rule in India – Insolvency of Partners (including problems).

Activities:

- Quiz Programs
- Problem Solving exercises

- Co-operative learning
- Seminar
- Visit a single-entry firm, collect data and Creation of Trial Balance of the firm
- Visit Non-profit organization and collect financial statements
- Critical analysis of rate of interest on hire purchase schemes
- Visit a partnership firm and collect partnership deed
- Debate on Garner v/s Murray rule in India and outside India
- Group Discussions on problems relating to topics covered by syllabus
- Examinations (Scheduled and surprise tests) on all units
- Collect data from your college and prepare a Receipt and Payment Account, Income and Expenditure Account and Balance Sheet

Reference Books:

1. Advanced Accountancy: T S Reddy and A Murthy by Margham Publications.
2. Financial Accounting: SN Maheswari & SK Maheswari by Vikas Publications.
3. Principles and Practice of Accounting: R.L. Gupta & V.K. Gupta, Sultan Chand & Sons.
4. Advanced Accountancy: R.L.Gupta & Radhaswamy, Sultan Chand &Sons..
5. Advanced Accountancy : S.N.Maheshwari&V.L.Maheswari, Vikas publishers.
6. Advanced Accountancy: Dr. G. Yogeshwaran, Julia Allen - PBP Publications.
7. Accountancy–III: Tulasian, Tata McGraw Hill Co.
8. Accountancy–III: S.P. Jain & K.L Narang, Kalyani Publishers.
9. Advanced Accounting (IPCC): D. G. Sharma, Tax Mann Publications.
10. Advanced Accounting: Prof B Amarnadh, Seven Hills International Publishers.
11. Advanced Accountancy: M Shrinivas& K Sreelatha Reddy, Himalaya Publishers.

SEMESTER-III

COURSE 5: ADVANCED ACCOUNTING

Practical Credits: 1 2 hrs/week

Lab Exercise:

- Non Trading Concerns - Creation of Company, Creation of Ledger Accounts, creation of Accounting Vouchers, and display of Income and Expenditure Account and Balance Sheet using Accounting Software / Package or in MS Excel.
- Hire Purchase Accounts - Preparation of Statement of Affairs in MS-Excel
- Partnership Accounts - Creation of Company, Creation of Ledger Accounts, Creation of Accounting Vouchers, and Display of Concern Ledgers and Balance sheet using Accounting Software / Package or in MS Excel.
- Single entry - Preparation of Statement of Affairs in MS-Excel

SEMESTER-III

COURSE 6: INCOME TAX

Theory Credits: 3 3 hrs/week

Learning Objectives:
The objective of this paper is to help students to acquire knowledge and previsions of income tax concepts and various heads of incomes. To impart skills for calculating various incomes and online filling of tax returns.

Learning Outcomes:
At the end of the course, the student will able to;
Acquire the complete knowledge of the tax evasion, tax avoidance and tax planning, Understand the provisions and compute income tax for various sources, Grasp amendments made from time to time in Finance Act, Compute total income and define tax complicacies and structure and Prepare and File IT returns of individual at his own.

Unit-I: Introduction: Income Tax Act-1961 - Basic Concepts: Income, Person, Assesses - Assessment Year, Previous Year, Rates of Tax, Agricultural Income, Residential Status of Individual -Incidence of Tax – Incomes Exempt from Tax (including problems).

Unit-II: Income from Salaries: Basis of Charge, Tax Treatment of Different Types of Salaries Allowances, Perquisites, Profits in Lieu of Salary, Deductions from Salary Income, Computation of Salary Income (including problems).

Unit-Ill: Income from House Property and Profits and Gains from Business: Annual Value, Let-out/Self Occupied/Deemed to be Let-out house -Deductions from Annual Value - Computation of Income from House Property Definition of Business and Profession – Procedure for Computation of Income from Business – Revenue and Capital Nature of Incomes and Expenses – Allowable Expenses – Expenses Expressly Disallowed – Computation (including problems).

Unit-IV: Income from Capital Gains - Income from Other Sources: Meaning of Capital Asset – Types – Procedure for Computation of Long-term and Short-term Capital Gains/Losses - Meaning of Other Sources - General Incomes – Specific Incomes – Computation (including problems).

Unit-V: Computation of Total Income of an Individual: Deductions under Section 80 - Computation of Total Income (Simple problems).

Activities:

- Seminar on different topics of Income tax
- Quiz programs
- Problem Solving Exercises
- Debate on Tax Evasion and Avoidance
- Practice of provisions of Taxation
- Visit a Tax firm
- Talk on Finance Bill at the time of Union Budget
- Guest lecture by Chartered Accountant
- Presentation of tax rates
- Practice of filing IT Returns online
- Identify and educate the individuals not having PAN Card and help them to acquire a PAN Card.
- Filling out the online application for the PAN Card and prepare the summarized report for the same.
- Finding out Residential status of any five NRI's from your area.
- Identify and evaluate the tax liability of some individuals having income under different heads of income.
- Go through the e-filing website of the Government of India.

Reference Books:

1. Dr. Vinod; K. Singhania; Direct Taxes – Law and Practice, Taxman Publications
2. T. S. Reddy and Dr. Y. Hari Prasad Reddy - Taxation , by Margham Publications
3. Premraj and Sreedhar, Income Tax, Hamsrala Publications
4. B.B. Lal - Direct Taxes; Konark Publications
5. Dr. Mehrotra and Dr. Goyal -Direct Taxes, Law and Practice, Sahitya Bhavan Publication.
6. Balachandran&Thothadri- Taxation Law and Practice, PHI Learning.
7. V.P. Gaur and D.B. Narang - Income Tax, Kalyani Publications
8. Dr Y Kiranmayi - Taxation, Jai Bharath Publishers
9. Income Tax, Seven Lecture Series, Himalaya Publications

SEMESTER-III

COURSE 6: INCOME TAX

Practical Credits: 1 2 hrs/week

Lab Exercise:

- E Filing of Income Tax Returns Generation of IT Forms like ITR 01(SAHAJ), ITR 02, ITR 03, ITR 04, ITR 4S (SUGAM), ITR 05 and ITR 06 and Register PAN, TAN, TIN, DIN and GSTIN online or manual.
- Practical Exposure to www.incometaxindiaefiling.gov.in portal and file Return Electronically on portal with or without Digital Signature Certificate.
- Pay Tax online through Net Banking and Generate Challans online and Manual.
- Form 16 B, How to view Tax Credit through 26AS and E Filing TDS Salary Return form 24Q and Challan.

SEMESTER-III

COURSE 7: E COMMERCE AND WEB DESIGNING

Theory Credits: 3 3 hrs/week

Course Objectives:

The course aims to help learners to acquire conceptual knowledge of fundamental concept of E-commerce & Web Designing. Emphasize the importance of various E-commerce & Web Designing. Developing and implementing efficient algorithms.

Learning Outcomes:

The student will be able to:

Explain how to create an **e-commerce website** from scratch, using PHP and the Bootstrap framework.

Display featured products correctly on a **web** page, using the bootstrap system. Explain how product detail models are programmed to be dynamic.

Unit 1: Basics And Definitions: Definition, E-Commerce with 5-C Model, Additional Terms, Business Models Related To E-Commerce, Advantages And Disadvantages, Web 2.0, Technical And Economic Challenges

Frameworks and Architectures: Actors And Stakeholders, Fundamental Sales Process And His 7+1 Process Steps Work, Technological Elements, Typical Applications

Case Study: Identify different E-Commerce websites and write their functionality.

Unit 2: B2C Business: B2c Basics, B2c-Business AndCrm, B2c Software Systems, Customer Relationship Management (Crm)

B2B Business: B2b Basics, Differences Between B2b And B2c, B2b Software Systems, Supply Chain Management

Case Study: Identify B2B and B2C websites in Unit-I Case Study and differentiate their functionality

Unit 3: Security & Compliance Management: Foundations Of Risk Management, Compliance Management, Information Security Management (Ism), Technology

Electronic Payment: Business and Money, the Payment Challenge, Payment Procedures, Receivables Management, Cyber Money

Case Study: Identify different payment methods used in purchasing of goods in Amazon, Flipkart etc.. and write their Pros and Cons of each payment method

Unit 4: Introduction to Web Programming: Introduction, creating a website, HTML tags, HTML Elements, HTML attributes, CSS Preview, History of HTML, Differences between old HTML and HTML5, how to check your HTML code

Coding Standards, Block Elements:
HTML coding conventions, Comments, HTML Elements, Should Describe Web Page Content Accurately, Content Model Categories, Block Elements, block quote Element, Whitespace Collapsing, pre Element, Phrasing Elements, Editing Elements, q and cite Elements, dfn, abbr, and time Elements, Code-Related Elements, br and wbr Elements.

Text Elements, and Character References: sup, sub, s, mark, and small Elements, strong, em, b, u, and i Elements, span Element, Character References, Web Page with Character References, and Phrasing Elements.
Case Study: Create a web page of your department using standard HTML tags, HTML elements and HTML attributes

Unit 5: Cascading Style Sheet (CSS): CSS Overview, CSS Rules, Example with Type Selectors and the Universal Selector, CSS Syntax and Style, Class Selectors, ID Selectors, span and div Elements, Cascading, style Attribute, style Container, External CSS Files, CSS Properties, Color Properties, RGB Values for Color, Opacity Values for Color, HSL and HSLA Values for Color, Font Properties, line-height Property, Text Properties, Border Properties, Element Box, padding Property, margin Property,

Case Study: Description of your City or place with the use of CSS and compare it with previous two case studies

Reference Books:

1. Introduction to E-Commerce:Combining Business And Information Technology By Martin Kutz
2. Lallana, Quimbo, Andam, 4. Cf. Ravi Kalakota and Andrew B. Whinston, Electronic Commerce:A Manager's Guide (USA: Addison Wesley Longman, Inc., 1997), 19-20.
3. Web Programming with HTML5,CSS and JavaScript, John Dean, Jones & Bartlett Learning
4. HTML & CSS: The Complete Reference, 5th Edition, Thomas. A. Powell

SEMESTER-III

COURSE 7: E COMMERCE AND WEB DESIGNING

Practical Credits: 1 2 hrs/week

Note: All the questions should be practiced using **Blue Griffon, Google Web Designer, KompoZer and open Element /any related tools.** The students should be taught the usage of appropriate html tags for these questions

In the practical examination the students have to write the procedure for performing the given task in front page followed by the html tags used to perform the task.

LIST OF EXPERIMENTS

1. Create a web page to display a hyperlink which when clicked directs you to Amazon website.
2. Create a web page to demonstrate your college name aligned with the logo of your college.
3. Create a web page to demonstrate definition lists taking various applications of ecommerce as an example.
4. Create a web page which asks for mode of payment which includes the options: Credit card/Debit card/Online transfer (use radio buttons)
5. Create a web page which asks the user to enter his credit card details. Use textboxes, drop down buttons.
6. Create a web page to display definition list which defines the terms: B2B, B2C, C2B, C2C.
7. Create a web page which displays four buttons containing text B2B, B2C, C2B, C2C. Also when a button is clicked details about the clicked subject should appear on a separate page.
8. Create a web page to display the text “Digital Marketing” which scrolls randomly.
9. Create a web page to scroll the text “E-Commerce” for exactly 5 times from left to right of the screen.
10. Create a web page to insert an image which when clicked redirects you to your college website.
11. Create a web page to display the name of your college in h6 size with blue as font color and background color yellow separated by a thick line and below which a paragraph about the facilities offered by your college is described.
12. Create a web page to demonstrate a pull-down menu. The menu should contain the list of your favorite south Indian dishes.
13. Create a web page with name of your college as text. The text should scroll, alternate and slide.
14. Create a web page to display an image surrounded by text on all the four sides.
15. Create a web page to display 3 images which are aligned left, right and center respectively.

16. Create a web page with 4 paragraphs of about 5 lines each describing about E-Marketing, E-Shopping, E-banking and E-Learning. The paragraphs should be aligned left, right, center and justified respectively.
17. Create a web page with name of your college as Text in h6 size, font as verdana, blue as font color followed by a copyright symbol and trademark symbol.
18. Create a login page asking the user to enter his username and password followed by a submit button.
19. Create a web page using a form which collects data about student rollno, name and marks in various subjects followed by submit and reset buttons.
20. Create a web page using a form titled as Feedback form which takes the feedback of faculty teaching a particular subject in your college. The form should have fields student name, rollno followed by 5 check boxes labeled Excellent, Very Good, Good, Average, Bad respectively.
21. Create an unordered list of popular B2C ecommerce web sites.

SEMESTER-III

COURSE 8: DIGITAL MARKETING

Theory Credits: 3 3 hrs/week

Course Objectives:

The course aims to identify the impact of digital space and digital marketing in reaching out to customers. Understand the importance of Search Engines and explain the working of Search Engines. Able to Define email Marketing and have knowledge on how Social Media Marketing is to be used by marketers?

Learning Outcomes:

The Students will be able to:

Use digital media for the creation of products and services and relate Search Engines in the digital marketing ecosystem. Use Search Engine Marketing for advertisements and know the Social Media platforms like Face book, Twitter, YouTube & LinkedIn for Marketing. Outline email Marketing and strategy to craft email marketing campaign.

Unit 1: Digital Marketing: Introduction to Digital Marketing. Traditional Vs. Digital Marketing, Technology behind Digital Marketing, Characteristics of Digital Marketing, Digital Marketing Strategy, Understanding Digital Consumer**.**

Case Study: Analyze the change in ranking of your Web Promotion Page

Unit 2: Online Advertising: Introduction, Objective, Where to Advertise, Online AdFormat, Search Engine Ad, Network Advertising, Affiliate Programs, Landing Pages

Case Study: Create Google Add for your college

Unit 3: Email Marketing: Introduction, Types of Email, Email Marketing Campaign Process, Email marketing Tools, Advantages and Disadvantages, Opt-in Email Advertising, Email tracking

Case Study: Analyse the impact of your E-Mail Campaign

Unit 4: Social Media Marketing (SMM):

What is Social Media Marketing, Seven Myths of SMM, Characteristics of Successful Social Media Marketer, Social Media Marketing plan, Social Media marketing Tools, Publishing Blogs, Podcast and Webinars, Social Media Monitoring, Social Media: Face book, Twitter?

Case Study:

1. Analyze the performance of your Facebook and Instagram Page
2. Analyze the performance of your YouTube Video

Unit 5: Search Engine Optimization (SEO): Understanding SEO, Search Engine Optimization Process – Goals, On-Page Optimization, Off-Page Optimization and Analyze, Search Engine Result Process (SERP), SEO Tools.

Case Study: Analyse the impact of your Twitter Campaign

Text Books:

1. Digital Marketing by Seema Gupta, McGraw Hill Education
2. Fundamentals of Digital Marketing by Punit Singh Bhatia, Pearson

References:

1. Basics of Digital Marketing - Course (swayam2.ac.in)

SEMESTER-III

COURSE 8: DIGITAL MARKETING

Practical Credits: 1 2 hrs/week

LIST OF EXPERIMENTS

1. Digital Marketing Implementation in Business Scenario
2. Create the Digital Marketing Webpage
3. Conducting the Search Engine Optimization and Search Engine Marketing
4. Using Google Analytics to analyze website performance
5. Creating Promotional banner through Canva
6. Face book Promotion using banners
7. Creating YouTube Channel for Marketing
8. Twitter Marketing
9. Instagram Marketing
10. Email Marketing

SEMESTER-IV

COURSE 9: CORPORATE ACCOUNTING

Theory Credits: 3 3 hrs/week

Learning Objectives:
This course enables the student to develop awareness about corporate accounting in conformity with the provisions of company act.

Learning Outcomes:
At the end of the course, the student will able to;
Understand the Accounting treatment of Share Capital and aware of process of book building, Demonstrate the procedure for issue of bonus shares and buyback of shares, Comprehend the important provisions of Companies Act, 2013 and prepare final accounts of a company with Adjustments, Participate in the preparation of consolidated accounts for a corporate group Understand analysis of complex issues, formulation of well-reasoned arguments and reaching better conclusions and Communicate accounting policy choices with reference to relevant laws and accounting standards.

Unit 1: Accounting for Share Capital: Kinds of Shares – Types of Preference Shares – Issue of Shares at Par, Discount and Premium - Forfeiture and Reissue of Shares (including problems).

Unit 2: Issue and Redemption of Debentures and Issue of Bonus Shares: Accounting Treatment for Debentures Issued and Repayable at Par, Discount and Premium -Issue of Bonus Shares - Buyback of Shares - (including problems).

Unit 3: Valuation of Goodwill: Need and Methods - Average Profit Method, Super Profits Method – Capitalization Method and Annuity Method (including problems).

Unit 4: Valuation Shares: Need for Valuation - Methods of Valuation - Net Assets Method, Yield Basis Method, Fair Value Method (including problems).

Unit 5: Company Final Accounts: Provisions of the Companies Act, 2013 - Preparation of Final Accounts – Adjustments Relating to Preparation of Final Accounts – Profit and Loss Account and Balance Sheet – (including problems with simple adjustments).

Activities:

- Problem Solving Exercises
- Collect and fill the share application form of a limited Company
- Collect Prospectus of a company and identify its salient features
- Collect annual report of a Company and List out its assets and Liabilities.

- Collect the annual reports of company and calculate the value of goodwill under different methods
- Power point presentations on types of shares and share capital
- Group Discussions on problems relating to topics covered by syllabus
- Students can gather the data relating to accounting set up of some local firms.
- Assignments including technical assignments like working with Audit Company for observation and submit to the teacher a Report.
- Individual project work on identified real time situations with respect to preparation of company final accounts
- On practical aspects dealt with by an Auditor.

Reference Books:

1. Corporate Accounting: T.S Reddy and Murthy, Margham Publications, Chennai.
2. Advanced Accounts: M C Shukla, T S Grewal and S C Gupta, S Chand Publications
3. Corporate Accounting: Haneef & Mukherji, Tata McGraw Hill Publications.
4. Corporate Accounting: RL Gupta & Radha Swami, Sultan Chand & sons
5. Corporate Accounting: P.C. Tulsian, S.Chand Publishers
6. Advanced Accountancy: Jain and Narang,,Kalyani Publishers
7. Advanced Accountancy: R.L. Gupta and M.Radhaswamy, S Chand.
8. Advanced Accountancy : Chakraborthy, Vikas Publishers
9. Corporate Accounting: S.N. Maheswari, S.K. Maheswari, Vikas Publishing House.
10. Advanced Accounts: M.C. Shukla, T.S. Grewal, S.C. Gupta, S. Chand & Company
11. Corporate Accounting: Umamaheswara Rao, Kalyani Publishers
12. Corporate Accounting: Dr Chanda Srinivas, Seven Hills International Publishers,

SEMESTER-IV

COURSE 9: CORPORATE ACCOUNTING

Practical Credits: 3 3 hrs/week

Lab Exercise:

- Preparation of Company Final Accounts, Creation of Company, Creation of Ledgers, Creation of Accounting Vouchers, Inventory Vouchers and display of Balance Sheet.
- Issue of Shares and Bonus Shares - Creation of Company, Creation of Ledgers, Creation of Accounting Vouchers, and display of concerned Ledgers using Accounting Software / Package or in MS Excel. .
- Issue and Redemption of Debenture - Creation of Company, Creation of Ledgers, Creation of Accounting Vouchers, and display of concerned Ledgers using Accounting Software / Package or in MS Excel.
- Valuation of Shares – Valuation of shares and Calculation Consideration in MS-Excel

SEMESTER-IV

COURSE 10: COST AND MANAGEMENT ACCOUNTING

Theory Credits: 3 3 hrs/week

Learning Objectives:
The aim of this course is to expose the students to the basic concepts and the tools used in cost accounting.

Learning Outcomes:
At the end of the course, the student will able to;
Understand various costing methods and management techniques, Apply Cost and Management accounting methods for both manufacturing and service industry, Prepare cost sheet, quotations, and tenders to organization for different works, Analyze cost-volume-profit techniques to determine optimal managerial decisions, Compare and contrast the financial statements of firms and interpret the results and Prepare analysis of various special decisions, using relevant management techniques.

Unit 1: Introduction: Cost Accounting: Definition – Features – Objectives – Functions – Scope – Advantages and Limitations - Management Accounting: Features – Objectives – Functions – Elements of Cost - Preparation of Cost Sheet (including problems)

Unit 2: Material and Labour Cost: Techniques of Inventory Control – Valuation of Material Issues: FIFO - LIFO - Simple and Weighted Average Methods. Labour: Direct and Indirect Labour Cost – Methods of Payment of Wages- Incentive Schemes -Time Rate Method, Piece Rate Method, Halsey, Rowan Methods and Taylor Methods only (including problems)

Unit 3: Job Costing and Batch Costing: Definition and Features of Job Costing – Economic Batch Quantity (EBQ) – Preparation of Job Cost Sheet – Problems on Job Cost Sheet and Batch Costing (including problems)

Unit 4: Financial Statement Analysis and Interpretation: Financial Statements - Features, Limitations. Need, Meaning, Objectives, and Process of Financial Statement Analysis- Comparative Analysis – Common Size Analysis and Trend Analysis (including problems)

Unit 5: Marginal Costing: Meaning and Features of Marginal Costing – Contribution –Profit Volume Ratio- Break Even Point – Margin of Safety – Estimation of Profit and Estimation of Sales (including problems)

Activities:

- Debate on methods of payments of wages
- Seminars Problem Solving Exercises
- Seminar on need and importance of financial statement analysis
- Graphs showing the breakeven point analysis
- Identification of elements of cost in services sector by Visiting any service firm
- Cost estimation for the making of a proposed product
- Listing of industries located in your area and methods of costing adopted by them
- Collection of financial statements of any two organization for two years and prepare a common Size Statements
- Collection of cost sheet and pro-forma of quotation
- Invited Lectures and presentations on related topics.
- Examinations (Scheduled and surprise tests)

Reference Books:

1. S.P. Jain and K.L. Narang – Advanced Cost Accounting, Kalyani Publishers.
2. M.N. Arora – A test book of Cost Accounting, Vikas Publishing House Pvt. Ltd.
3. S.P. Iyengar – Cost Accounting, Sultan Chand & Sons.
4. Nigam & Sharma – Cost Accounting Principles and Applications, S.Chand& Sons.
5. S.N. Maheswari– Principles of Management Accounting, Sultan Chand & Sons.
6. I.M.Pandey – Management Accounting, Vikas Publishing House Pvt. Ltd.
7. Sharma & Shashi Gupta – Management Accounting, Kalyani Publishers.
8. Murthy & Guruswamy – Management Accounting, Tata McGraw Hill, New Delhi.
9. S.P. Gupta – Management Accounting, S. Chand Publishing, New Delhi.
10. Umamaheswara Rao and Ranganath, Cost Accounting, Kalyani Publishers.
11. Dr V Murali Krishna – Cost Accounting, Seven Hills International Publishers.

SEMESTER-IV

COURSE 10: COST AND MANAGEMENT ACCOUNTING

Practical Credits: 1 2 hrs/week

Lab Exercise:

- Preparation of Cost Sheet, Preparation of FIFO and LIFO Stores ledgers, using Accounting Software / Package or in MS Excel.
- Computation of problems on Marginal Costing, BEP and BEP Chart in MS Excel.
- Preparation of Profit and Loss Account in Contribution, Calculation of BEP using Accounting Software / Package or in MS Excel.
- Create Cost Centers; enable Godowns for Job Costing, Inventory control method using Accounting Software / Package or in MS Excel.
- Calculation of Labour cost in MS Excel
- Financial statement analysis like Trend Analysis, Comparative statements and Common size statements with using Accounting Software / Package or in MS Excel.

SEMESTER-IV

COURSE 11: DATABASE MANAGEMENT SYSTEM WITH ORACLE

Theory Credits: 3 3 hrs/week

Course Objectives:

The course aims to help the Students will have the expertise in analyzing real time problems and providing appropriate solutions related to Computer Science & Engineering. The Students will have the knowledge of fundamental principles and innovative technologies to succeed in higher studies and research. Theyl continue to learn and to adapt technology developments combined with deep awareness of ethical responsibilities in profession.

Learning Outcomes:

An ability to apply Knowledge of computing and mathematics in Computer Science &Engineering. They will analyze a problem, identify and define the computing requirements appropriate to its solution. An ability to design, implement and evaluate a computer-based system to meet desired needs with appropriate societal considerations. The will have knowledge on to conduct investigations, interpret data and provide conclusions in investigating complex problems related to Computer Science & Engineering. An ability to engage in continuing professional development and life-long learning.

Unit 1: Overview of Database Systems: Introduction: Database system, Characteristics (Database Vs File System), Database Users, Advantages of Database systems, Database applications.

Data Models: Introduction; types of data models, Concepts of Schema, Instance and data independence; Three tier schema architecture for data independence; Database system structure, environment, Centralized and Client Server architecture for the database.

Case Study:

1. Describe the differences between Database systems and File based systems
2. Study about database models and their advantages and dis-advantages

Unit 2: Relational Model: Introduction to relational model, Codd's rules, concepts of domain, attribute, tuple, relation, constraints (Domain, Key constraints, integrity constraints) and their importance , concept of keys (super key, candidate key, primary key, surrogate key, foreign key) , relational Algebra & relational calculus.

Normalization: Purpose of Normalization or schema refinement, concept of functional dependency, normal forms based on functional dependency(1NF, 2NF and 3 NF), Boyce-codd normal form(BCNF)

Case Study:
Describe Relational model and normalization for database design

Unit 3: Entity Relationship Model: Introduction, Representation of entities, attributes, entity set, relationship, relationship set, constraints, sub classes, super class, inheritance, specialization, generalization using ER Diagrams,

BASIC SQL: Database schema, data types, DDL operations (create, alter, drop, rename), DML operations (insert, delete, update), basic SQL querying (select and project) using where clause, arithmetic & logical operations, aggregation, grouping, ordering.

Case Study:

1. Examine issues in data storage and query processing using SQL.
2. Create, maintain and manipulate a relational database using SQL

Unit 4: SQL: Nested queries/ sub queries, implementation of different types of joins, SQL functions(Date, Numeric, String, Conversion functions), Creating tables with relationship, implementation of key and integrity constraints, views, relational set operations , Transaction Control Language: commit, Rollback, Savepoint , DCL :Grant, Revoke

Case Study:

Try to convert some sample data to information and show how it can you be used in decision making.

Unit 5: PL/SQL: Introduction, Structure , Control Structures , Cursors , Procedure , Function , Packages , Exception Handling ,Triggers.

Transaction processing Concepts : Transaction State, Implementation of Atomicity and Durability, Concurrent Executions, Serializability, Recoverability, Implementation of Isolation, Testing for Serializability, Failure Classification, Storage, Recovery and Atomicity, Recovery algorithm.

Case Study:

Outline the role and issues in Transaction management of data such as efficiency, privacy, security.

Suggested Text Books

- Database Management Systems, 3rd Edition ,Raghurama Krishnan, Johannes Gehrke, TMH
- Database System Concepts,5th Edition ,Silberschatz, Korth, TMH

SEMESTER-IV

COURSE 11: DATABASE MANAGEMENT SYSTEM WITH ORACLE

Practical Credits: 1 2 hrs/week

LIST OF EXPERIMENTS

SQL:

Cycle-I: Aim: The marketing company wishes to computerize its operations by using the following tables.

Table Name: Client Master

Description: Used to store client information

Column Name	Data Type	Size	Attribute
CLIENT_NO	Varchar2	6	Primary key
NAME	Varchar2	20	Not null
ADDRESS1	Varchar2	30	
ADDRESSS	Varchar2	30	
CITY	Varchar2	15	
PINCODE	Varchar2	8	
STATE	Varchar2	15	
BAL_DUE	Number	10,2	

Table Name: Product Master

Description: Used to store product information

Column Name	Data Type	Size	Attribute
PRODUCT_NO	Varchar2	6	Primary key
DESCRIPTION	Varchar2	15	Not null
PROFIT _PERCENT	Number	4,2	Not null
UNIT_MEASUE	Varchar2	10	
QTY_ON_ HAND	Number	8	
REORDER_LVL	Number	8	
SELL_PRICE	Number	8,2	Not null, cannot be 0
COST _PRICE	Number	8,2	Not null,cannot be 0

Table Name: Salesman master

Description: Used to store salesman information working for the company.

Column Name	Data Type	Size	Attribute
SALESMAN_NO	Varchar2	6	Primary key
SALESMAN_NAME	Varchar2	20	Not null
ADDRESS1	Varchar2	30	
ADDRESS2	Varchar2	30	
CITY	Varchar2	20	
PINCODE	Number	8	
STATE	Vachar2	20	
SAL_AMT	Number	8,2	Not null, cannotbe0
TGT_TO_GET	Number	6,2	Not null, cannotbe0
YTD_SALES	Number	6,2	Not null
REMARKS	Varchar2	20	

Table Name: SALES_ORDER

Description: Used to store client orders

Column Name	Data Type	Size	Attribute
ORDER_NO	Varchar2	6	Primary key
CLIENT_NO	Varchar2	6	Foreign Key
ORDER _DATE	Date		
DELY_ADDRESS	Varchar2	25	
SALESMAN_NO	Varchar2	6	Foreign Key
DELY_TYPE	Char	1	Delivery:part(p)/full(f)anddefault‘ F’
BILL_YN	Char	1	
DELY_DATE	Date		Can’tbe lessthanorderdate
ORDER _STATUS	Varchar2	10	Values(“InProcess”,“Fulfilled”, “Back Order”, “Cancelled)

Table Name: SALES_ORDER_DETAILS

Description:Used to store client's order with details of each product ordered.

ColumnName	Data Type	Size	Attribute
ORDER_NO	Varchar2	6	Primary key references SALES_ORDER table
PRODUCT_NO	Varchar2	6	Foreign Key references SALES_ORDER_table
QTY_ ORDERED	Number	8	
QTY_ DISP	Number	8	
PRODUCT_RATE	Number	10,2	Foreign Key

Solve the following queries by using the above tables.

1. Retrieve the list of names, city, and the state of all the clients.
2. List all the clients who are located in 'Mumbai' or 'Bangalore'.
3. List the various products available from the product_mastertable.
4. Find the names of salesmen who have a salary equal to Rs.3000.
5. List the names o fall clients having 'a' as the second letter in their names.
6. List all clients whose Baldue is greater than value 1000.
7. List the clients who stay in a city whose first letter is 'M'.
8. List all information from the sales-order table for orders placed in the month of July.
9. List the products whose selling price is greater than 1000 and less than or equal to 3000.
10. Find the products whose selling price is greater than 1000 and also find the new selling price as the original selling price of 0.50.

Cycle-II Supplier

Aim: A manufacturing company deals with various parts and various suppliers supply these parts. It consists of three tables to record its entire information. Those are as follows.
Supplier (Supplier_No, Sname, City, status) Part(Part_no, pname, color, weight, city, cost)
Shipment (supplier No, Part_no, city) JX (project_no, project_name, city)
SPJX (Supplier no, part_no, project_no,city)

1. Get supplier numbers and status for suppliers in Chennai with status>20.
2. Get project names for projects supplied by supplier 'S'.
3. Get colors of parts supplied by supplier S·.
4. Get part numbers for parts supplied to any project in Mumbai.

5. Find the id's of suppliers who supply a red or pink parts.

Cycle–III Employee Database

Aim: An enterprise wishes to maintain a database to automate its operations. Enterprise is divided into certain departments and each department consists of employees. The following two tables describe the automation schemas.

Emp(Empno, Ename, Job, Mgr, Hiredate, Sal, Comm, Deptno)
Dept(Deptno, Dname, Loc)

1. List the details of employees who have joined before the end of September '81.
2. List the name of the employee and designation of the employee, who does not report to anybody.
3. List the name,salary and PF amount of all the employees(PF is calculated as10%of salary)
4. List the names of employees who are more than 2 years old in the organization.
5. Determine the number of employees, who are taking commission.
6. Update the employee salary by 20%,whose experience is greater than 12 years.
7. Determine the department does not contain any employees.
8. Create a view, which contains employee name and their manager names working in sales department.
9. Determine the employees, whose total salary is like the minimum salary of any department.
10. List the department numbers and number of employees in each department.

PL/SQL PROGRAMS

1. Writea PL/SQL program to check the given string is palindrome ornot.
2. The HRD manager has decided to raise the employee salary by 15% write a PL/SQL block to accept the employee number and update the salary of that employee. Display appropriate messages based on the existence of the record in the Emp table.
3. Write a PL/SQL program to display the top 10 rows in the Emp table based on their job and salary.
4. Write a PL/SQL program to raise the employee salary by 10% for department number 30 people and also maintain the raised details in the rais table.
5. Create a procedure to update the salaries of Employees by 20%, for those who are not getting commission
6. Write a PL/SQL procedure to prepare an electricity bill by using following table. Table used: Elect

Name	Null?	Type
MNNO	NOT NULL	NUMBER(3)
CNAME		VARCHAR2(20)
CUR_READ		NUMBER(5)
PREV_READ		NUMBER(5)
NO_ UNITS		NUMBER(5)
AMOUNT		NUMBER(8,2)
SER_TAX		NUMBER(8,2)
NET_AMT		NUMBER(9,2)

7. Create a trigger to avoid any transactions(insert, update, delete) on EMP table on Saturday & Sunday.

SEMESTER-V

COURSE 12: ADVANCED CORPORATE ACCOUNTING

Theory Credits: 3 3 hrs/week

Learning Objectives

The course aims to help learners to acquire conceptual knowledge of purchase of business and amalgamation of companies. They able to understand the accounting procedure of liquidation and corporate accounting procedures.

Learning Outcomes

After completing the course, the student shall be able to:

Understand Corporate Accounting environment and record transactions related to Purchase of Business, Amalgamation and Reconstruction. Analyze the situations of Purchase of Business and Liquidation and create formulas and calculations relating to Amalgamation, Internal Reconstruction and Holding company accounts. Acquire skills of Accounting Procedure of Advanced Corporate Accounting Environment.

Unit 1: Purchase of Business: Meaning - Purchase Consideration - Methods for determining Purchase Consideration-Discharge of Purchase Consideration-Accounting Treatment.

Unit 2: Amalgamation of Companies: Meaning and Objectives - Provisions for Amalgamation of Companies as per Accounting Standard 14 - Accounting Treatment.

Unit 3: Internal Reconstruction of Companies : Meaning - Forms of Internal Reconstruction - Alteration of Share Capital and Reduction of Share Capital- Accounting Treatment.

Unit 4: Accounts of Holding Companies: Meaning of Holding Companies and Subsidiary companies- Consolidated Financial Statements- Legal requirements on Consolidation- Calculation of Minority Interest- Accounting Treatment.

Unit 5: Liquidation: Meaning - Modes of Winding up of a Company- - Liquidator's Final Statement of Account - Calculation of Liquidator's Remuneration - Preparation of Statement of Affairs and Deficiency Account- Accounting Treatment

Activities:

- Students are asked to identified real time situations with respect to Amalgamation, Liquidation, Purchase Consideration and submit report..

- Assignments including technical assignments like Working with Audit Company for Observation of Purchase Consideration and Observation of recent Amalgamations in Banking Sector and Corporate Sector
- Seminars, Conferences, discussions by inviting concerned institutions
- Field Visit
- Invited Lectures and presentations on related topics

Reference Books:

1. Goyal, Bhushan Kumar. Corporate Accounting. Taxmann, New Delhi
2. Kumar, Alok. Corporate Accounting. Kitab Mahal
3. Monga, J. R. Fundamentals of Corporate Accounting. Mayur Paper Backs, New Delhi
4. Sah, Raj Kumar, Concept Building Approach to Corporate Accounting, Cengage
5. Sehgal Ashok & Sehgal Deepak. Corporate Accounting
6. Tulsian P. C. Corporate Accounting. S Chand & Co. New Delhi
7. *https://thebookee.net/ad/advanced-corporate-accounting-and-accounting-standards*
8. Web resources suggested by the Teacher concerned and the College Librarian including reading material

SEMESTER-V

COURSE 12: ADVANCED CORPORATE ACCOUNTING

Practical Credits: 1 2 hrs/week

Lab Exercise:

- Preparation of Financial Statements of Companies before and after amalgamation with Accounting Software
- Preparation of Balance Sheet of Companies before and after Internal Reconstruction with Accounting Software
- Preparation of Consolidated Balance Sheet of Holding and Subsidiary Companies using Accounting Software
- Preparation of Statement of Affairs-Deficiency Account-Surplus Account of a Liquidating Company in Microsoft Excel

SEMESTER-V

COURSE 12: ADVERTISING AND MEDIA PLANNING

Theory Credits: 3 3 hrs/week

Learning Objectives:
The objective of this paper is to help students to acquire knowledge on advertising and media planning and to acquire skills in creating and developing advertisements.

Learning Outcomes:
At the successful completion of the course students are able to:
Understand the role of advertising in business environment and understand the legal and ethical issues in advertising. Acquire skills in creating and developing advertisements and understand up-to-date advances in the current media industry. Acquire the necessary skills for planning and advertising media campaign.

Unit 1: Introduction: Advertising- Nature and Scope- Functions - Impact on Social, Ethical and Economical Aspects - Its Significance – Advertising as a Marketing Tool and Process for Promotion of Business Development - Criticism on advertising

Unit 2: Strategies of Advertisements: Types of Advertising Agencies and their Strategies in Creating Advertisements - Objectives - Approach - Campaigning Process - Role of Advertising Standard Council of India (ASCI) - DAGMAR approach

Unit 3: Process of Advertisement: Creativeness and Communication of Advertising –Creative Thinking – Process – Appeals – Copy Writing - Issues in Creation of Copy Testing –Slogan Elements of Design and Principles of Design

Unit : Media Planning: Advertising Media - Role of Media - Types of Media - Print Media - Electronic Media and other Media - Advantages and Disadvantages – Media Planning - Selection of Media.

Unit 5: Analysis of Market Media: Media Strategy – Market Analysis -Media Choices - Influencing Factors - Target, Nature, Timing, Frequency, Languages and Geographical Issues - Case Studies

Activities:

- Students shall individually choose a local or regional advertising agency, visit, study it's processes, strategies, business aspects etc. and has to submit his/her Report not exceeding 10 pages in the given format to the teacher.

- Max marks for Fieldwork/Project work Report: 05**.**
- Unit tests (IE).
- Survey on existing products advertisements
- Creation of advertising on several products
- Invited Lectures
- Hands on experience with the help of field experts
- Debates, Seminars, Group Discussions, Quiz, etc.
- Assignments, Case studies, Compilation of paper cuttings, Preparation of related videos, Class exhibitions

Reference Books:

1. Bhatia. K.Tej - Advertising and Marketing in Rural India - Mc Millan India

2. Ghosal Subhash - Making of Advertising - Mc Millan India

3. Jeth Waney Jaishri& Jain Shruti - Advertising Management - Oxford university Press

4. Advertising Media Planning, Seventh Edition Paperback – by Roger Baron (Author), Jack Sissors (Author)

5. Media Planning and Buying in 21st Century – Ronald DGeskey

6. Media Planning and Buying: Principles and Practice in the Indian Context – Arpita Menon

7. Publications of Indian Institute of Mass Communications

8. Advertising and Salesmanship. P. Saravanavel, Margham Publications

9. Publications of ASCI

SEMESTER-V

COURSE 12: ADVERTISING AND MEDIA PLANNING

Practical Credits: 1 2 hrs/week

Lab Exercise:

Creating an online advertisement using MS office or Computer tools.
Selection of Product or Service - Target your Competitors -Creating Brand Image - Develop a theme with slogan - identify core group - priorities message- Media Selection
Creation of Advertisement using MS Word or the PPT
Creation of Shorts and Videos in YouTube
Uploading Reels and Stories in Face book and instagram

SEMESTER-V

COURSE 13: STOCK MARKETS

Theory Credits: 3 3 hrs/week

Learning Objectives:
The objective of this paper is to help students to acquire knowledge on concept of Financial Market and ability to understand the terminologies associated with the field of Financial Market and control along with their relevance. To impart awareness on Primary and Secondary Market, Stock Exchange, SEBI etc.

Learning Outcomes:
By the completion of the course, the students will be able to
Expose to theory and functions of the Share Market in Financial Sector as job careers and 2. Study the functioning of capital markets and create awareness among the public. Acquire knowledge on operations of Share Market and Research skills and involve in activities of Mutual Funds and stock market firms. Enhance their skills by practicing in preparation of accounting statements

Unit 1: Introduction,: Nature, Scope and basics of stock market**,** Need of Investment-Short and Long Term investment- Money market Vs Capital Market-Primary Market-Secondary Market - Types of Investors- Speculators, Hedgers, Arbitragers.

Unit 2: Capital Markets: Definition, Participants of Capital Market, Participants of Primary Market, issues of Equity Shares , Preference Shares and Debentures .Types of Mutual Funds. Secondary Market -Stock Exchange - National Stock Exchange of India.

Unit 3: Financial Intermediaries: Depositories -Buy Back of Shares-- Forward Contract and Future Contract- differences –Participants in Future Contract- Clearing of Mechanism.

Unit 4: Stock Indices: Index and its types-SENSEX- Calculation Methodology-Types of Clearing Members.

Unit 5: Regulatory Mechanism: Security and Exchange Board of India (SEBI)-Powers, functions - Over the Counter Exchange (OTCE) of India-Functions and Mechanism.

Activities:

- Students shall **i**ndividually study the work of stock market professionals and agencies and make observations and Report to the teacher.
- Training of students by a related field expert.

- Assignments (including technical assignments like identifying the investors and their activities in share markets
- Seminars, Conferences, discussions by inviting concerned institutions
- Visits to local Investment Institutions, offices,
- Invited lectures and presentations on related topics by field experts.

Reference Books:

1. I.M.Pandey. ,Financial Management, Vikas Publishing House
2. Prasanna Chandra, Fincial Management TaTa Mc Graw Hill
3. Bhole.L.M. Financial Markets and Institutions, Tata McGraw Hill Publishing House
4. Khan MY,Jain PK, Financial Management, Tata McGraw Hill
5. Kishore Ravi.M., Financial Management, Taxman Publication

SEMESTER-V

COURSE 13: STOCK MARKETS

Practical Credits: 1 2 hrs/week

Lab Exercise:

- An Introduction. Practical aspects and background of Depositaries: NSDL, CSDL. Statements: Holding Statement, Transaction Statement. Dematerialization Procedure
- DEMAT: Account Opening Procedure, Nomination Practices; Offline Demat Account & Online Demat Account.
- Clearing & Settlement Procedure Delivery Instruction Slip Practices for Depositary Participants & Beneficial Owner.
- Introduction to Equity Market. Stock Exchanges of Equity in India: NSE, BSE & USE. Types of Market:- Equity, Derivatives and Debt Market.
- Trader Work Station -User Interface. Practical terminology of Work Stations.
- Functions/Keys following in using Trader Work Station: Market Watch, Activity Log, Order Status, Market Movement, Security descriptor, Market by Price.
- Practical Procedure to buy/Sell Shares; Settlement Procedures. Composition of Sensex and Nifty.

Note: The Simulation Lab of the market will be based on any one of the following Trader Work Station: 1.Trader Work Station— NEST Trader by Owneys. 2.TCS Trader Work Station 3. ODIN

SEMESTER-V

COURSE 13: GOODS AND SERVICES TAX WITH TALLY

Theory Credits: 3 3 hrs/week

Learning Outcomes

After completing the course, the student shall be able to:

1. Understand the concept of Liability and Payment of GST
2. Create a new company in Tally with GST components and establish environment for GST Voucher entry.
3. Comprehend the utilization of input tax credit, and the reverse charge mechanism in GST
4. Acquire Skills of preparation of GST Returns in accordance with GST Law and Tally
5. Acquire skill of online payment of GST through GST Portal.

Unit 1: Introduction: Overview of GST - Concepts –Taxes Subsumed under GST –Components of GST- GST Council- Advantages of GST-GST Registration.

Unit 2: GST – Accounting Masters and Inventory Masters in Tally : Company Creation- General Ledgers & GST Ledgers Creation - Stock Groups , Stock Items and Unit of Measure - GST Rate Allocation to Stocks

Unit 3: GST Voucher Entry: GST Vouchers - Customizing the Existing Voucher types with applicable GST Rates –Mapping of Input Tax Credit on Purchase Vouchers - Output Tax on Sales Vouchers- Purchase and Sales Voucher Entries with Single Rated GST and Multiple Rated GST Goods.

Unit 4: GST Returns: Regular Monthly returns and Annual Return- Returns for Composition Scheme- Generation of Returns - GSTR-1, GSTR-2, GSTR-3, GSTR-4, GSTR-9, GSTR-3B

Unit 5: Payment of GST online: Payment of GST- Electronic Filing of GST Returns – Refunds – Penalties- Administrative structure of GST Officers- Powers- Jurisdiction.

Activities

- Seminars
- Practice of Terminology of Goods and Service Tax
- Prepare chart showing rates of GST
- Follow GST Council meeting updates regularly
- Creation of GST Vouchers and Tax invoices
- Visit a Tax firm (Individual and Group)
- Guest lecture by GST official

- Prepare Tax invoice under the GST Act.
- Practice on how to file a Returns
- Debate on Single GS, Dual GST
- Group Discussions on Goods and Services outside the Purview of GST

References:

1. Ahuja, Girish, Gupta Ravi, GST & Customs Law.

2. Babbar, Sonal, Kaur, Rasleen and Khurana, Kritika. Goods and Service Tax (GST) and Customs Law. Scholar Tech Press.

3. Bansal, K. M., GST & Customs Law, Taxmann Publication.

4. Singhania,Vinod K. and Singhania Monica. Students' guide to Income Tax. University Edition. Taxmann Publications Pvt Ltd.,New Delhi.

5. Sisodia Pushpendra, GST Law, Bharat Law House.

6. ***Web resources:***https://cbic-gst.gov.in

7. Web resources suggested by the Teacher concerned and the College Librarian including reading material

SEMESTER-V

COURSE 13: GOODS AND SERVICES TAX WITH TALLY

Practical Credits: 1 2 hrs/week

Lab Exercise:

- Create Company and with GST and Create duty ledgers in the Tally
- Create stock item with GST and Sales and Purchases vouchers with GST in tally
- Reverse charge mechanism under GST and GST returns in Tally GSTR-1 and GSTR-3B
- Registration of dealer under GST, Regular dealer and Composite dealer
- GST returns for Composite dealer GST CMP-08 and Annual return for composite dealer GSTR-4
- GST returns for Regular dealer GSTR-1 and Reconciliation of GSTR2B, Actual input tax credit as per Books and Regular dealer GSTR -3B
- DRC 03-voluntary tax payments and Regular dealer Annual returns GSTR 9

SEMESTER-V

COURSE 14: BUSINESS ANLYSTICS

Theory Credits: 3 3 hrs/week

Course Objectives:

The course aims to help learners to acquire knowledge on Business Analytics and explain why Business Analytics is important. State some typical examples of Business Applications and differentiate between OLAP and OLTP. Explain the concepts of Business Intelligence and understand different types of Analytics Differentiate between Data Mining and Machine Learning Concepts

Learning Outcomes:

After Completing this course, the students will be able to
Understand business analytics and develop business intelligence. Analyze data using statistical and data mining techniques for business intelligence. Understand case studies for predictive models. Expertise in OLAP Tools. Apply different Analytic Techniques

Unit 1: Business Analytics: definition, Components of Business Analytics, Types of Business Analytics methods, Benefits of Business Analytics, Business Analytics Tools, Applications of Business Analytics, Trends in Business Analytics

Case Study:

1. Retail Analytics
2. Marketing Analytics

Unit 2: Descriptive Analytics, Statistics: Types of Statistics, Types of Data, Measure of Central Tendency: Mean, Median, Mode, Standard Deviation, Variance

Case Study:

1. Financial Analytics
2. Social Media and Web Analytics

Unit 3: OLAP, OLAP Operations: Roll Up, Drill Down, Slice and Dice, Pivot, Types of OLAP, OLAP Tools, OLTP, Characteristics of OLTP, OLTP advantages and disadvantages,

Case Study: Working with any one of the OLAP Tools

Unit 4: Architecture and Components of Business Intelligence, Business Intelligence for Management, Operational BI,What is Business Intelligence, Benefits of BI, Roles and Responsibilities of BI, Overview of Popular BI Tools in Market

Case Study: Real-Time Credit and Debit Card Fraud Detection, an HPE Shadowbase

Unit 5: Data Mining Concept, Concepts of data mining model with its development and deployment in business scenario, Types of Data Mining Models, Machine Learning: definition, How ML works, Features and Importance of ML, Machine Learning Concepts: Classification of ML

Case Study: Healthcare Analytics

Text Books:

1. Module 5, Business Data Analytics by IBM
2. Essentials of Business Analytics: An introduction to the methodology and its applications by Bhima sankaram P, Sridhar S

SEMESTER-V

COURSE 14: BUSINESS ANLYSTICS

Practical Credits: 1 2 hrs/week

LIST OF EXPERIMENTS

1. Draw the diagram showing the types of Variables with examples.
2. Differentiate between Numerical and Categorical Variables.
3. What are Named variables? Using Ms-Excel, create a list of 10 named variables and add the numbers automatically.
4. What is a Ratio Variable? State the importance of Ratio Variable in Data Analytics.
5. Explain the Data Table in Excel. Create a One Variable Data Table in Excel.
6. What is a two Variable Data Table? Write steps to create a Two Variable Data Table.
7. Write steps for analyzing a Data Table with Multiple Formulas in Excel.
8. How do you Create, Rename, Recode, and Merge Variables in R?
9. Write steps to create Your Name, Age, Class, and College Name in R.
10. Draw a Chart for R- Variables.
11. Find the Average Price of given items using MS-Excel.

Rice Bag Ashirwad	1450
Rice Bag India Gate	1200
Sona’s Sona Masurie	1300
Kohinoor Rice	1100
Aabida Basmati Rice	1400
Indian Valley	1250
Mannat Rice	1200
Shaalimaar Rice	1425

12. Using Ms-Excel, find the Median Value of the following items.

Items	**Status**	**Amount Rs.**
Banana	Delivered	758
Apple	Cancelled	258
Cherry	In-transit	587
Banana	Delivered	495
Banana	Cancelled	687
Apple	Delivered	258
Cherry	Delivered	684

13. Find the most frequently ordered Quantity from a supermarket store in MS-Excel.

Products	**Quantity**	**MRP (Rs.)**
Tang Orange Flavour	5	1050
Rasna Orange	6	1200
RoohAfza	5	1800
Tang Apple	10	1200
Rasna Green Apple	5	1700
Tang Cocktail	5	1400
Jaljeera	15	120

14. Find the Highest and Lowest Marks of Students obtained in English using Ms-Excel.

Himabindu	85
Karthik	15
Renuka	78
Mallika .S	15

Ashok Jaiswal	100
Billu Yadav	75
Girish J.	50
Sarika	05

15. Find the Geometric and Harmonic Mean Wages from the following data using Ms-Excel.

Job	**Wages (Rs.)**
Electrician	200
Nurse	500
Sales Manager	540
Manufacturing Engineer	540
Celebrity	450
Beautician	480
Data entry operator	350
Plumber	240

16. Using Ms-Excel, calculate Standard Deviation of total sales from the given data.

Total Sales (Rs.)	**Branch**
258000	Delhi
485220	Mumbai
875010	Kolkata
235461	Hyderabad
875212	Indore
785223	Surat
345621	Pune

17. Find Q1 and Q3 and also Quartile Deviation from the following information in Ms-Excel.

S. No.	Value
1	145
2	254
3	156
4	354
5	253
6	253
7	245
8	892
9	242
10	268

18. Find the Quartiles from the following data in Ms-Excel.

Height (in inches)	58	59	60	61	62	63	64	65	66
No. of Persons	2	3	6	15	10	5	4	3	1

19. Compare and find the Range of 10 Students' marks in Mathematics and Statistics using Ms-Excel.

Maths	25	40	30	35	21	45	23	33	10
Statistics	30	39	23	42	2	40	25	30	18

20. Calculate Variance from the following data in MS-Excel.

X: 10, 11, 17, 25, 7, 13, 21, 10, 12, 14

SEMESTER-V

COURSE 14: CYBER SECURITY

Theory Credits: 3 3 hrs/week

Course Objectives:

The aim of this course is to help the learner to understand key terms and concepts in cyber security. The Learner will learn to secure clean and corrupted systems, protect personal data, and secure computer networks. The Learner will be able to examine secure software development practices and gain an understanding of cryptography, how it has evolved, and some key encryption techniques used today.

Learning Outcomes:

The students will be able to:

Analyze and evaluate the cyber security needs of an organization. Determine and analyze software vulnerabilities and security solutions to reduce the risk of exploitation. Measure the performance and troubleshoot cyber security systems. Implement cyber security solutions and use of cyber security, information assurance, and cyber / computer forensics software/tools. The Learner will develop an understanding of security policies (such as confidentiality, integrity, and availability) and protocols to implement such policies and will gain familiarity with prevalent network and distributed system attacks, defenses against them, and forensics to investigate the aftermath.

Unit 1: Cyber Security Fundamentals: Network Security Concepts: Information Assurance Fundamentals, Basics of Cryptography: Symmetric and Asymmetric, DNS, Firewalls, Virtualization, Radio-Frequency Identification Microsoft Windows Security Principles: Windows Tokens, Window Messaging, Windows Program Execution, Windows Firewall

Case Study: Install any Virtualization Software and perform various tasks

Unit 2: Attacker techniques and motivations: Anti forensics, Tunneling Techniques, Fraud Techniques, and Threat Infrastructure

Case Study: Working with Free and commercial proxies available from web-hack.ru.

Unit 3: Exploitation: Techniques to gain a Foothold, Misdirection, Reconnaissanse, and Disruption Methods

Case Study: Working with SQL Injection attacks and DDoS attacks

Unit 4: Malicious Code: Self-Replicating Malicious Code, Evading Detection and Elevating Privileges, Stealing Information and Exploitation.

Case Study: Identify latest Malwares and differentiate different types of malwares

Unit 5: Defense and Analysis Techniques: Memory Forensics, Honeypots, Malicious Code Naming, Automated Malicious Code Analysis Systems, Intrusion Detection Systems

Case Study: Identify latest Anti-Virus Softwares in the market and compare the functionality of each Anti-Virus

Text Books:

1. Cyber Security Essentials by James Graham, Richard Howard, Ryan Olson, CRC Press
2. Introduction to Cyber Security by Jeetendra Pandey
3. Cryptography and Network Security by William Stallings

References:

Cyber Security for Beginners by Heimdal® Security - Proactive Cyber Security Software (heimdalsecurity.com)

SEMESTER-V

COURSE 14: CYBER SECURITY

Practical Credits: 1 2 hrs/week

Assignment 1:

1. What is the command used for finding host/domain name and IP address?
2. What is the command will display the assigned IP address of ETHERNET adapter?
3. What is the command used for checking the network connectivity?
4. What is the command used for finding all the ip addresses of a given domain name?
5. What is the command used for finding connection to and from the host?
6. What is the command used to view user information, user's login name, real name terminal name and write status ?
7. What is the command used for mapping name to IP addresses?
8. What is the command used for connecting to a host on a particular port?
9. What is the command used to make a connection to a remote machine and execute programs as if one were physically present ?
10. What are the text based web browsers available through command line?

Assignment 2:

1. What is the command used for downloading a website for off-line view ?
2. What is the command used for displaying or manipulating the ARP (Address Resolution Protocol) information on a network device or computer. ?
3. What is the command used for checking/starting/stopping networking services, users, messaging, configuration and so on...?
4. What is the command a packet filtering configuration program used for manipulating net filter kernel based firewall?
5. What is the command used for showing network statistics?
6. What is the command used for displaying and manipulating routing table ?
7. What is the command used to monitor access control for supported services ?
8. What is the command used to view network traffic?
9. What is the command used to change your hostname ?
10. What is the command used for an interface IP address ?

Assignment 3:

1. What is the command used for controls access to daemons at the application level, rather than at the IP level?

2. What is the command used for connecting to a host with encryption?

3. In what is the file, we can find the local look up server used by the browser. 4. Command used to find out the intermediate nodes between the host and the server is.

5. What is the command used to find out the intermediate domain name nodes between the host and the server?
6. Command used to follow all the information a DNS server has about a particular domain
7. The command get documents/files from or send documents to a server
8. How to check if a particular interface is up and running?
9. This command used to list info about machines that respond to SMB name queries (for example windows based machines sharing their hard disks).
10. This command used to look up the contact information from the "who is" databases, the servers are only likely to hold major sites. Note that contact information is likely to be hidden or restricted as it is often abused by crackers and others looking for a way to cause malicious damage to organizations.
11. It allows you to send and receive files between two computers.
12. Another part of the ssh package. This command similar to ftp but uses an encrypted tunnel to connect to an ftp server and is therefore more secure than just plain ftp.
13. Part of the ssh package. Allows you to copy files from one computer to another computer.
14. nfs - nfsfstab format and options
15. where to look to find out the services What is the are available to the system .
16.where to look to find out the list of protocols What is the are available to the system along with their port numbers .
17. To listing the iptables of your linux system.
18. How to know if a service is running or not.
19. How to Enable IP Forwarding in Linux

Assignment 4:

1. Study of Wireshark Manual.

Assignment 5 :

Perform the following using Wireshark

1. Identify the first 2 packets (i.e. their packet numbers) containing HTTP GET request.
2. What webpage was visited in the above 2 packets?
3. What version of HTTP was used?
4. What is the destination IP address in the above packets?
5. List the source and destination ports of the packets travelling from the client to this server in the above packets?
6. In the HTTP server's response, look at the information sent about the server. What server software was used?
7. What are the IP addresses of the server?

Assignment 6:

Perform the following using Wireshark.

1. What are the MAC addresses of the client and server?
2. How many WebPages (not websites) have been opened?
3. What is the time difference between first HTTP GET and the first HTTP response (OK)?
4. Count the total number of HTTP GET requests.
5. What is the time difference between the first and last HTTP GET requests? Hint: Follow a similar procedure as mentioned previously.
6. How may packets were exchanged between the server (corresponding to the both IP addresses) and the client?

(Note: Their sum must be equal to the total no. of packets)

7. Find the total no. of HTTP requests sent by the host spongebob.wikia.com.

Assignment 7:

1. SQL Injection Implementation and Execution.

Assignment 8:

1. Give a short note on OSSEC?
2. What are the components of OSSEC
3. List the few key features of OSSEC.
4. What are the types of agent in OSSEC?
5. What are the roles of Manager (server) and an Agent in OSSEC?
6. What is Syscheck in OSSEC?
7. What is LIDS and HIDS?

Assignment 9:

1. What is the type of log used by pflogsumm?
2. What is the type of log used by webalizer?
3. What are the different types of logs used by AWStats?
4. Pflogsumm analyzes is a mail/weblog or both?
5. Webalizer analyzes is a mail/weblog or both?
6. Command line option used for increment log analysis, mention domain name and squid log file with webalizer.
7. AWStats tools written in What is the language?

Assignment 10:

1. Steps for setting up Cyber Security in organization.

References for All Assignments:

1. http://www.ossec.net/
2. www.linuxmanpages.com/man1/pflogsumm.1.php
3. www.webalizer.org/
4. http://www.computersecuritystudent.com/SECURITY_TOOLS/DVWA/

SEMESTER-V

COURSE 15: MOBILE APPLICATON DEVELOPMENT USING ANDROID

Theory Credits: 3 3 hrs/week

Course Objectives:

The course aims to help learners to acquire conceptual knowledge of understanding Android SDK . To help students to gain a basic understanding of Android application development and instill working knowledge of the Android Studio development tool

Course Outcomes:

The student will be able to:

Identify various concepts and features of Android operating system. Configure Android environment and development tools. Develop rich user Interfaces by using layouts and controls. Use User Interface components for android application development. Create Android application using database. Publish Android applications.

Unit 1: Introduction to Android: - Overview, History, Features of Android, The Android Platform, Understanding the Android Software Stack – Android Application Architecture –The Android Application Life Cycle – The Activity Life Cycle, Creating Android Activity -Views-Layout Android SDK, Android Installation, Building you First Android application, Understanding Anatomy of Android Application, Android Manifest file.

Case Study:

1. Give a brief description of Android Architecture and its parts.
2. List out the challenges we face while using Android?
3. List the new features of Android in the latest version.

Unit 2: Android Application Design Essentials: Anatomy of an Android applications, Android terminologies, Creating User Interfaces with basic views- Application Context, Activities, Services, Intents, linking activities with Intents,, Receiving and Broadcasting Intents, Android Manifest File and its common settings, Using Intent Filter, Permissions.

Case Study:

1. Present an idea that you would like to convert it into an application in the future.

Unit 3: Android User Interface Design Essentials: User Interface Screen elements, Designing User Interfaces with Layouts, Drawing and Working with Animation. Layouts, Recycler View, List View, Grid View and Web view

Input Controls: Buttons, Checkboxes, Radio Buttons, Toggle Buttons, Spinners, Input Events, Menus, Toast, Dialogs, Styles and Themes, Creating lists, and Custom lists.

Case Study:

1. Present detail report on the features of Check Boxes, Radio Buttons and Toggle Buttons.

Unit 4: Testing Android applications: Publishing Android application, Using Android preferences, Managing Application resources in a hierarchy, working with different types of resources.

Case Study:

1. List out the special features of Android with its counterparts.

Unit 5: Using Common Android APIs: Internal Storage, External Storage, SQLite Databases, Managing data using Sqlite, Sharing Data between Applications with Content Providers, Using Android Networking APIs, Using Android Web APIs, JSON Parsing, Using Android Telephony APIs, Deploying Android Applications to the World. Google Maps, Using GPS to find the current location, Sensors, and Bluetooth / Wi-Fi Connectivity.

Case Study:

1. List out the points to keep in mind to make you application more attractive.
2. List the controls that make you application attractive.

REFERENCE BOOKS:

1. Reto Meier, "Professional Android 2 Application Development", Wiley India Pvt Ltd
2. Mark L Murphy, "Beginning Android", Wiley India Pvt Ltd
3. "Android Application Development All in one for Dummies" by Barry Burd, Edition: I
4. "Android", Dixit, Prasanna Kumar Vikas Publications, New Delhi 2014, ISBN: 9789325977884
5. Maclean David, Komatineni Satya,Allen Grant , "Pro Android 5", ApressPublications2015ISBN: 978-1-4302-4680-0
6. " Android Programming for Beginners" by Hortan, John, Packet Publication, 2015ISBN: 978-1-78588-326-2
7. Lauren Darcey and Shane Conder, "Android Wireless Application Development",Pearson Education, 2nd ed. (2011)

ONLINE READING / SUPPORTING MATERIAL:

1. http://www.developer.android.com
2. http://developer.android.com/about/versions/index.html
3. http://developer.android.com/training/basics/firstapp/index.html

4. http://docs.oracle.com/javase/tutorial/index.htm (Available in the form of free downloadable ebooks also).
5. http://developer.android.com/guide/components/activities.html
6. http://developer.android.com/guide/components/fundamentals.html
7. http://developer.android.com/guide/components/intents-filters.html.
8. http://developer.android.com/training/multiscreen/screensizes.html Syllabus of BCA (Honours) under CBCS 33 9. http://developer.android.com/guide/topics/ui/controls.html
9. http://developer.android.com/guide/topics/ui/declaring-layout.html
10. http://developer.android.com/training/basics/data-storage/databases.html

SEMESTER-V

COURSE 15: MOBILE APPLICATON DEVELOPMENT USING ANDROID

Practical Credits: 1 2 hrs/week

LISTOFEXPERIMENTS:

1. Develop a program to implement frame layout, table layout and relative layout.
2. Develop a program to implement Text View and Edit Text.
3. Develop a program to implement Auto Complete Text View.
4. Develop a program to implement Button, Image Button and Toggle Button.
5. Develop a program to implement login window using the above U1 controls.
6. Develop a program to implement Checkbox.
7. Develop a program to implement Radio Button and Radio Group.
8. Develop a program to implement Progress Bar.
9. Develop a program to implement List View, Grid View, Image View and Scroll View.
10. Develop a program to implement Custom Toast Alert.
11. Develop a program to implement Date and Time Picker.
12. Develop a program to create an activity. Develop a program to implement new activity using explicit intent and implicit intent.
13. Develop a program to implement content provider.
14. Develop a program to implement service.
15. Develop a program to implement broadcast receiver.
16. Develop a program to implement sensors.
17. Develop a program to build Camera.
18. Develop a program for providing Bluetooth connectivity.
19. Perform CRUD operations using SQLite.
20. Develop a program for JSON parsing.

SEMESTER-V

COURSE 15: BLOCK CHAIN TECHNOLOGY

Theory Credits: 3 3 hrs/week

Course Objectives:

The course aims to help learners to acquire conceptual knowledge of Block Chain Technology. To Understand Security systems in Block Chain Technology. To acquire knowledge to applications of Block Chain Technology.

Learning Outcomes:

The students will be able:

Identify various types of Software Architecture and understand types of Cryptography. Improve knowledge in understanding underlying technologies in Block Chain Technologies. Understand the storage methods and advantages and have knowledge on the applications of Block Chain

Unit 1: Layers of a Software System, Integrity, A Payment System, Types of Software Architecture, Purpose of the Blockchain, Peer-to-Peer system: Definition, Architecture, Link between Peer-to-Peer and Blockchain, Integrity Threats in Peer-to-Peer Systems, Four ways of Defining Blockchain, The purpose of the Blockchain, Blockchain Properties

Case Study: Identify Different Crypto Payments and Differentiate Them

Unit 2: Foundations of Ownership, Security Related concepts in Block chain, Purpose and Properties of a Ledger, Double Spending Problem, Designing and Developing a Software System, Documenting Ownership, Integrity of the Transaction History

Case Study: Study about Harbor, Ubitquity, Propy that are used in Real Estate

Unit 3: Hash Function in Block chain, Patterns of Hashing Data, Uses of Hash Values, Cryptography: Activities, Types of Cryptography, Digital Signatures

Case Study: Differentiate between various Blockchain Techniques used in Medical Field such as Ambrosus, Connecting Care, Farma Trust, MedRec

Unit 4: Transforming Book into Blockchain Data structure, Chaining Blocks of Data, Protecting the Data Store, Distributing the Data Store among Peers, Verifying and Adding Transactions

Case Study: How we Apply Blockchain Technology in Elections and Voting

Unit 5: Choosing a transaction History, Paying for Integrity, Technical Limitations of Blockchain, Conflicting Goals of the Blockchain, Characteristics of the Blockchain, Blockchain Applications, Blockchain Platforms

Case Study: Identify various Blockchain Technologies used in Entertainment

Text Books:

1. Blockchain Basics by: A Non-Technical Introduction in 25 Steps by Daniel Drescher, APress
2. Blockchain: Cybrosys Limited Edition

Web References:

1. 10 Blockchain Use Cases in Real Practical World | GoLinuxCloud
2. 33 Top Blockchain Applications to Know for 2023 | Built In
3. 15+ Practical Blockchain Use Cases in 2022 - 101 Blockchains
4. 30+ Real Examples Of Blockchain Technology In Practice (forbes.com)

SEMESTER-V

COURSE 15: BLOCK CHAIN TECHNOLOGY

Practical Credits: 1 2 hrs/week

LIST OF EXPERIMENTS

1. Creating and Building Up Crypto Token
2. Ethereum Smart Contract
3. Creating and Building Up Bitcoin Wallet
4. Introduction to Hyperledger
5. Creating a Business Network using Hyperledger
6. Creating a Business Network using Hyperledger- II
7. Building and Deploying multichain private Blockchain