

BACHELOR OF COMPUTER APPLICATION (BCA) – THIRD SEMESTER

Third Semester			
S. No.	Name of Subject	Credits	Total Marks
1	Foundation Course in Business Entrepreneurship and Management	2	100
2	Computer Networks	5	100
3	Business Communication	4	100
4	Data Structure	5	100
5	Software Project Management	4	100
6	English Literature – I	4	100
Total		24	

Subject Name: FOUNDATION COURSE IN BUSINESS ENTREPRENEURSHIP AND MANAGEMENT

- Entrepreneurship:** Concept, value creation, entrepreneurial mindset-innovation and creativity, entrepreneurial decision making-use of biases and heuristics, risk bearing, social and commercial entrepreneurship.
- Business:** Concept, types, facilitators and inhibitors of business, role of e-commerce and m-commerce, technological innovation and its viability, ethical considerations.
- Market and Society:** Generation and utilization of resources, concept of market, exploring and segmenting the market, demand and supply factors, understanding customer adoption process.
- Management:** Concept, function and culture of management, innovation and technology, managing finance, role of incentives and managing human resource.

Subject Name: COMPUTER NETWORKS

- Introduction to Computer Networks:** Introduction, User of Networks: Goals and applications, OSI Reference Mode, Novell Netware, ARPANET, NSFNET, And the Internet.
- The Physical Layer:** Transmission media, Twisted Pair, Baseband and Broadband Coaxial Cable, Fiber Optics, Wireless Transmission, Radio Transmission, Microwave Transmission, Infrared Transmission, Light Wave Transmission, ISDN Services, Virtual Circuits verses Circuit Switching, Transmission in ATM Network, Paging System, Cordless Telephone, Cellular Telephone, and Communication Satellite.
- The Data Link Layer:** The data link Layer, Framing , Error Control, Flow- Control, Error Detection and Correction Protocols, Simplex Stop and Wait Protocols, One Bit sliding Window, Using Go- Back n, the Data link layer in the internet.
- The Medium Access Sub – Layer:** The Medium Access Sub Layer , Framing Static and Dynamic Channel Allocation in LAN and MANs ,IEEE standard 802.3 and Ethernet, IEEE standard 802.4 and Token Bus,

- IEEE 802.4 and Token Ring; Bridges, Bridges form 802x to 802y, Transparent Bridges, Source Routing Bridges.
5. **The Network Layer:** The network layer , network layer Design Issues, shortest Path routing, Flooding, Flow Based Routing , Broadcast Routing, Congestion Control and Prevention Policies, Internet Working, Connectionless Internet Working , Tunneling Internet Work Routing, Fragmentation, Firewalls, IP Address Internet Control Protocols.
 6. **The Transportation Layer:** The transportation Layer, The Transport Service, Transport Protocols, Addressing,, Establishing a Connection, Releasing a Connection, The Internet Transport Protocols, TCP.
 7. **The Application Layer:** The Application layer, Network Security, Electronic mail, working of e-mail.

Subject Name: BUSINESS COMMUNICATION

1. **Basics of Communication:** Introduction, Why Communication, Meaning and definition of Communication, Importance of Communication, Elements Of Communication Process, Communication Process Models, Basics Forms Of Communications, Effective Communication.
2. **Communication Theories:** Assumptions about Communication, Communication Theory, Communication Models, Uses of theories and models.
3. **Audience Analysis:** Introduction, Types of Audience, Importance of Audience Analysis, Analyzing Individual and Members of Audience.
4. **Self-Development:** What is self-development, Objectives of self- development, How Self-Development Improves Communication, How Communication Leads to Self-Development, How to Development Oneself.
5. **Developing Positive Attitude:** Impact of Positive Attitude on Communication, How to Develop Positive Thinking.
6. **Corporate Communication:** Corporate Communication, Corporate Communication and Marketing Communication, Types of Corporate Communication.
7. **Formal vs. Informal Communication Network:** Formal Communication Network, Informal Communication.
8. **Barriers to Communication:** Semantic Barriers, Physical Barriers, Organizational Barriers, Psychological Barriers, How to Overcome Communication Barriers.
9. **Practices in Business Communication:** Group Communication, Group Discussion, Seminar, Mock Interview, Presentations, Listening.
10. **The Essentials of Effective Communication:** 7c's of Communication, Other Principles of Communication.
11. **Non Verbal Communication:** Kinesics, Proxemics, Physical Context.
12. **Writing Skill:** Writing Skill, Business Writing, You- Attitude, Steps In Effective Writing.
13. **Letter and Memo Writing: Formats:** Functions of Business Letters, Types of Letters, Parts Of Business Letters, Format Of Business Letters, How to make Business Letters Effective.
14. **Request Letters:** Approaches to request Letters.
15. **Good News Letters:** Purpose of Good news letters, Organization of Good news letters.
16. **Bad News Letters:** What is bad news letter, purpose of writing bad news letters, the right Attitude, Drafting news message.
17. **Persuasive, Sales and Collection Letters:** Types Of Persuasive Letters, Purpose Of Persuasive Letters, How to Persuade Others, Approach to Persuasive letters, Most Common Forms Of Persuasive Letters, Letters Applying Or Offering For Agency.
18. **Memo Writing:** Memo, Memo Format, How to write effective Memos.

19. **Report Writing:** Meaning of Business Report, Types of Reports, Importance of Reports, Essentials of Good Business Report, Steps in Business Report Writing, Structure of Reports.
20. **Speeches and Presentations:** Characteristics of a good speech, How to make Effective Speech, Presentations, Support, Speech, Sales Presentation.
21. **Listening:** Importance of Listening, Types of Listening, and Barriers to effective Listening.
22. **Interviewing Skill:** Types of Interview, Staging and conducting effective interviews, conducting the Interview, Information Gathering Interviews, Selection Interview.
23. **Resumes and Job Application:** Job Application Letters, Writing Solicited Letters, Resume Writing.
24. **Modern Forms of Communication:** Facsimile (FAX), Video Conferencing, Electronic, Electronic Mail (E-Mail).
25. **SWOT Analysis:** SWOT Analysis and Communication, use of SWOT analysis by organizations

Subject Name: DATA STRUCTURE

Unit-I Basic Concepts

1. Fundamental: Data Structures, Algorithms and various types of applications.
2. Basic Data Types: Stack, Lists and recursion.

Unit-II Trees & Sets

1. Trees: Definition and implementation of binary tree, tree traversal, postfix, prefix notations, heap.
2. Sets: Definition and Implementation of hash table, priority queues.

Unit-III Algorithms & File Structure

1. Sorting Algorithms : Quick sort, insertion sort, Bubble sort, merge sort
2. Searching Algorithms: Linear search, Binary search, depth first search and Breadth first search techniques.
3. File Structure: Sequential, Index Sequential file Structure.

Subject Name: SOFTWARE PROJECT MANAGEMENT

1. **Introduction:** All Software Engineers Are Created Equal.
2. **Software Project Planning:** Understanding the Project Needs, Write the Vision and Scope Document, Project background, Create the Project Plan, Statement of Work, Resource List, Estimates and project Schedule, Risk Plan, Brainstorm potential risks, Estimate the impact of each risk, Make a mitigation Plan, Diagnosing Project Planning Problems, The Mid-Course Correction, The Detached Engineering Team.
3. **Estimation:** Elements of a Successful Estimate, Assumptions Make Estimates More Accurate, Distrust Can Undermine Estimates, Wideband Delphi Estimation, The Delphi Process, Choosing the team, Kickoff meeting, Individual preparation, Estimation Session, Assemble tasks, Review results, Diagnosing Estimation Problems, Padded Estimates Generate Distrust, Self-Fulfilling Prophecy.
4. **Project Schedules:** Building the project schedule, Allocate Resources to the Tasks, Identify Dependencies, Create the Schedule, Reconcile the Schedule with the Organization's Needs, Add Review Meetings to the Schedule, Optimize the Schedule, Don't Abuse Buffers, Track the Performance of the Project, Managing Multiple Projects, Understand Dependencies Between Projects, Prioritize Projects Realistically, Use the Schedule to Manage Commitments, Diagnosing Scheduling Problems, Misunderstood Predecessors.

5. **Reviews:** Inspections, Choose the Inspection Team, Inspect the Work Product, Desk check, Walkthroughs, Code Reviews, Programming, Use Inspections to Manage Commitments, Diagnosing Review Problems.
6. **Software Requirements:** Requirements Elicitation, Conduct Interview, Use Cases, Software Requirements Specification, Develop the SRS Interactively, Change Control, Introduce Software Requirements Carefully, Diagnosing Software Requirements Problems.
7. **Design and Programming:** Review the design, Version Control with subversion, Refactoring, Unit Testing, Unit, Use Automation, and Be Careful with Existing Projects.
8. **Software Testing:** Test Plans and test cases, Test Execution, Defect Tracking and Triage, Test Environment and Performance Testing, Smoking Tests, Test Automation, Postmortem Reports, Using Software Testing Effectively, Diagnosing Software Testing Problems.
9. **Understanding Change:** Why Change Fails, How to Make Change Succeed.

Subject Name: ENGLISH LITERATURE – I

1. Writing of Indian author
 - a. Jawaharlal Nehru
 - b. Dr. R Radhakrishnan
 - c. Rabindra Nath Tagore
2. Indian Folk Tales Translated by Foreign authors
3. Introduction to Victorian Age of English Literature
4. Play by Shakespeare

Famous Poems by English Poets