

Programme Name : BCA	A Unit of Sri S. S. Jain Educational Society Resourcedited by MAAC Affiliated to University of Madras An 180 3001/2015 Certified Institution Program	nme Code: SZ1
Course Code & Course	Course Outcomes	Cognitive
Name Cognitive Level - Remembe	At the end of this course the students will be able to er - (R), Understand - (U), Apply - (P), Analyse - (A), Evaluate - (E), Create - (C)	Level
dogmerve zever Rememb	I Year - I Semester	
	CO1: இக்கால இலக்கிய வகைகளையும் இலக்கிய வரலாற்றையும்	U
	தெரிந்து கொள்வர்.	
LA11A - Tamil I	CO2: இக்கால இலக்கியங்களைத் துய்க்கும் முறைகளையும்,	U
	உணர்த்தும் கருத்துகளையும் அறிந்து கொள்வர்.	
	CO3: மொழியைத் திறம்படப் பயன்படுத்தும் ஆற்றலைப் பெறுவர்.	U
	CO1: Define the overview of the rich French civilisation.	R
CLK1S - French I	CO2: Infer the phrase to write the informal letters.	U
	CO3: Make use of the rules of grammar in the phrases.	P
CLEAR III. J. I	CO1: Infer the values from the stories and relate them to real life experiences.	U
CLE1E - Hindi I	CO2: Construct official and business correspondence using functional Hindi.	P
	CO1: Explain the greatness of epics in Sanskrit literature	U
CLG1E - Sanskrit I	CO2: Outline the Sanskrit grammar- Lakaras, Indeclinables and Shabdas	U
	CO3: Explain the literary merit of Raghuvamsa of Kalidasa	U
	CO1: Demonstrate the basics of LSRW in real life applications	U
LZ11A - Communicative English I	CO2: Classify American and British vocabulary	U
	CO3: Demonstrate the usage of grammar in written and oral form	U
	CO1: Understand the principles of Python and acquire skills in programming in python.	U
	CO2: Develop the emerging applications of relevant field using Python.	P
SE21A - Problem Solving using Python	CO3: Interpret the fundamental Python syntax and semantics and be fluent in the use of Python control flow statements.	U
	CO4: Develop simple turtle graphics programs in Python.	Р
	CO5: Develop python programs using functions and common data structures.	Р
	CO1: Understand the numeric or real life application problems and solve them.	U
SE211 - Problem Solving using Python Lab	CO2: Apply a solution clearly and accurately in a program using Python.	Р
	CO3: Apply the best features available in Python to solve the situational problems.	P



Course Code & Course Name	A United 18 to 8.8. Agin Educational Secrety Reasonable of the Name Course Outcomes At the end of this course the students will be able to	Cognitive Level
SM3AA - Mathematics I	CO1: Gain knowledge about basic concepts of Algebra, Theory of Equations, Matrices, Trigonometry and Calculus.	U
	CO2: Choose the appropriate interpolation formula to obtain the intermediate value of any function.	U
	CO3: Explain matrices, certain properties of matrices, eigen values, eigen vectors and Cayley Hamilton Theorem and use them in problems.	U
	CO4: Determine polynomial equations, Transformation of equations and roots of Reciprocal equation.	U
	CO5: Illustrate how to expand powers and multiple angles of trigonometric functions.	U
	CO6: Recall the various differentiation formula to find Jacobians, Curvature, Radius of Curvature, Maxima and Minima of the functions.	R
	CO1: தமிழ் எழுத்துக்களின் வகைகளை எழுதவும் படிக்கவும் அறிந்து கொள்வர்.	U
	CO2: சொற்களின் வகைகளை அறிந்து கொள்வர்.	U
NLT1C - Basic Tamil I	CO3: வாக்கிய அமைப்பு முறை மற்றும் பிழையின்றி எழுதத் தெரிந்து கொள்வர்.	U
	CO4: தமிழ் எண்கள், உறவுப் பெயர்கள், வாழ் இடங்கள் மற்றும் பொருள்கள் பற்றித் தெரிந்து கொள்வர்.	U
	CO5: தமிழகத்தின் இயற்கை, விழாக்கள் மற்றும் உணவு முறைகளை அறிந்து கொள்வர்.	U
	CO1: இக்கால இலக்கியங்கள் உணர்த்தும் கருத்துகள், துய்க்கும் முறைகளை அறிந்து கொள்வர்.	U
TLT1C - Advanced Tamil I	CO2: இக்கால இலக்கிய வகைகள் மற்றும் வரலாற்றை தெரிந்து கொள்வர்.	U
	co3: மொழியைத் திறம்படப் பயன்படுத்தும் ஆற்றலைப் பெறுவர்.	U
	CO1: Awareness to overcome health problems.	U
CC5AC - Non Major	CO2: Explain the importance of self health care management.	U
Elective I - Health Care Management	CO3: Explain the significance of family and communal health.	U
	CO4: Explain the techniques of disaster management.	U
	CO1: Students to get the knowledge of retail marketing and its segmentation.	U
CC5AD -Non Major Elective II- Retail Marketing	CO2: Summarize the Concepts of branding , labeling and supply chain management in retail trade.	U
	CO3: Outline the role of Information technology in retailing and Communication tools used in retailing.	U



Course Code & Course Name	A Unit of 81 B. 3. Jan Educational Boolety Reaccepted by MAAC Affiliated to University of Madelas As 100 Bollety 2015 Centrille Intelligibles Course Outcomes At the end of this course the students will be able to	Cognitive Level
AG5AA -Non Major	CO1: Recognize the sounds in the English language and improve their pronunciation.	R
	CO2: Make telephonic conversations in English.	U
Elective III-Spoken English - 1	CO3: Acquire improved knowledge of functional grammar.	A
	CO4: Improve Spoken English.	A
	CO1: Demonstrate their listening skill	U
PZ1SA - Professional	CO2: Illustrate the use of language skills for speaking with confidence in an intelligible and acceptable manner	U
English for Physical Sciences	CO3: Illustrate their reading skill while reading independently unfamiliar texts with comprehension	U
	CO4: Illustrate their writing skill while writing simple sentences without committing error of spelling or grammar	U
	I Year - II Semester	
	CO1: சங்க இலக்கியம், அற இலக்கியங்களின் அமைப்பு மற்றும்	**
	இலக்கிய வரலாற்றையும் தெரிந்து கொள்வர்.	U
LA12A - Tamil II	CO2: சங்க இலக்கியம், அற இலக்கியங்களின் சிறப்பியல்புகள்,	U
	உணர்த்தும் விழுமியங்களை அறிந்து கொள்வர்.	
	co3:மொழியைத் திறம்படப் பயன்படுத்தும் ஆற்றலைப் பெறுவர்.	U
	CO1: Explain the different parts of speech.	U
CLK2T - French II	CO2: Recall the short texts.	R
	CO3: Outline the culture and tradition.	U
	CO1: Understand and exlain the one act plays and make students get a good opportunity to get acquainted with the situation of the society which helps in making the girl students self-reliant.	U
CLE2G - Hindi II	CO2: Summarize the author's experience in the story.	U
	CO3: Infer the phrase and transalte the passages.	U
	CO1: Explain the merits of Gadya kavyas in Sanskrit literature.	U
CLG2G - Sanskrit II	CO2: Explain grammar-Lakaras and Shabdas	U
	CO3: Summarize the moral derived from the stories.	U



Course Code & Course	A Unit of \$16, B. Jun Educational Exolety Reasonabled by NAAC Administration of Management of Mana	Cognitive Level
Name	CO1: Demonstrate the learnt LSRW skills to communicate their ideas.	U
LZ12A - Communicative English II	cor. Demonstrate the learnt LSKW Skins to communicate their ideas.	
	CO2: Find the correct vocabulary to use in the given context.	R
	CO3: Demonstrate the right usage of grammar.	U
	CO1: Understand OOP concepts and write programs for Abstraction, Encapsulation, Inheritance and Polymorphism.	U
SU22A - Object Oriented programming Concepts Using C++	CO2: Develop simple programs in C++ using Pointers.	U
USING CTT	CO3: Develop programs using files and String handling.	Р
	CO1: Understand the structure and model of the C++ programming language.	U
SU221 - C++ Programming Lab	CO2: Solve problems in C++ demonstrating Object Oriented Concepts.	P
	CO3: Develop program using C++ Object Oriented Concepts.	Р
	CO1: Gain knowledge about basic concepts of Differential Equations, Laplace Transforms, Vector Analysis and Calculus.	U
	CO2 : Derive the reduction formulae for different kinds of functions using integration by parts and bernoulli's formula.	U
	CO3 : Illustrate how to develop Fourier Series for the given functions.	U
SM3AE - Mathematics II	CO4 : Explain the methods of Solving partial differential equation and ordinary differential equations using laplace and inverse laplace transformations.	U
	CO5 : Find gradient, curl, solenoidal and irrotational vectors.	U
	CO6 : Illustrate problems in line, surface and volume integrals .	U
	CO1: நீதி இலக்கியங்கள் உணர்த்தும் அறங்களை அறிந்து கொள்வர்.	U
	CO2: நீதி கதைகள் உணர்த்தும் அறங்களைத் தெரிந்து கொள்வர்.	U
NLT2D - Basic Tamil II	CO3: தமிழ் இலக்கியம், தமிழக வரலாறு மற்றும் அலுவலகப் பெயர்கள்	U
	பற்றித் தெரிந்து கொள்வர். CO4: பழமொழிகள் உணர்த்தும் விழுமியங்களை அறிந்து கொள்வர்.	U
	CO1: கட்டுரைகளின் வழி சமுதாயச் சூழல்களை, மாறுபாடுகளை அறிந்து	
	கொள்வர்.	U
TLT2D - Advanced Tamil	CO2: சங்க இலக்கியங்கள், பக்தி, காப்பிய இலக்கியங்கள் உணர்த்தும்	U
II	விழுமியங்களை அறிந்து கொள்வர். CO3: சங்க இலக்கியம், பக்தி, காப்பிய இலக்கியம், கட்டுரை இலக்கிய	
	வரலாறுகளைத் தெரிந்து கொள்வர்.	U
	co4: மொழியைத் திறம்படப் பயன்படுத்தும் ஆற்றலைப் பெறுவர்.	U



Course Code & Course Name	A Unit of \$10 is 3.5. Jun Educational Society Reacception legistry Reacception of the State	Cognitive Level
CC5AG- Non Major Elective	CO1: Understand the application of Emotional Intelligence.	U
IV - Emotional Intelligence	CO2: Interpret varied human emotions.	U
	CO1: Identify the function of grammatical items used in spoken/written language.	R
AG5AB - Non Major	CO2 :Engage in improved conversations in English.	A
Elective V - Spoken English II	CO3: Make brief public speeches in English.	A
	CO4: Improve Spoken English Skills.	A
	CO1: Illustrate interview skills with boldness and confidence.	U
PZ1SC - Professional English for Physical Sciences	CO2: Show adaptability in the workplace context, having become efficient listeners and readers.	U
Sciences	CO3: Demonstrate their skills to apply to the Research & Development organisations/sections in companies and offices with winning proposals.	U
	II Year - III Semester	
	CO1: Implement abstract data types for linear data structures.	U
SZ23A - Data Structure	CO2: Apply the different linear and non linear data structures to problem solutions.	Р
	CO3: Critically analyze the various sorting algorithms.	A
	CO1: Understand the Knowledge of the structure and model of the Java programming language.	U
SZ23B - Java Programming	CO2: Understand the basic principles of creating Java applications with GUI.	U
	CO3: Demonstrate use of string and String Buffers, Develop multithreaded programs in Java.	U
	CO1: Describe the major components of a computer system and state their function and purpose.	U
SZ23C - Computer	CO2: Describe the microstructure of a processor.	U
Organisation	CO3: Demonstrate the ability to program a microprocessor in assembly language.	U
	CO4: Classify and describe the operation DMA and peripheral Interfaces.	U
	CO1: Write functions to implement linear and non-linear data structure operations.	P
SZ231 - Data Structure using JAVA Lab	CO2: Suggest appropriate linear and non-linear data structure operations for solving a given problem.	P
	CO3: Analyze various sorting methods.	A



Course Code & Course Name	A Unit of \$1 if \$.8. Jain Educational Society Reacception by NAAC Affiliated 16 University of Madras An 1800 Oding Security Hamiltonian Course Outcomes At the end of this course the students will be able to	Cognitive Level
SZ33A - Financial Accounting	CO1: Acquaint with Principles of accounting and well equipped in the system of keeping Financial Accounting Records	U
	CO2 : Explain the different methods of depreciation and understand the preparation of financial statements for business units under single entry.	U
	CO3 : Explain accounting procedure to prepare branch accounts under various methods and compute the profit earned by dependent and independent branches. Summarise integrated departmental profit and loss account by computing the profits earned by departments after allocation of common expenses to various departments.	U
	CO4 : Show the profitability of Hire purchase transactions in case of partial and complete repossession.	U
	CO5 : Show a new balance sheet of a partnership firm after reconstitution. Explain dissolution of partnership and prepare the final settlement to partners through application of Garner Vs Murray rule.	U
	CO1: Interpret the process and concepts pertaining to listening, speaking and reading.	U
TSSEB - Essentials of Language and Communication Skills	CO2: Demonstrate their writing skills to fulfill the requirements for employment.	U
	CO3: Demonstrate their ability to use Business correspondences and its types.	U
	II Year - IV Semester	
	CO1: Analyse different network models.	A
SZ24A - Computer Network	CO2: Analyse and compare a number of data link, network and transport layer.	A
	CO3: Analysing key networking protocols and their hierarchical relationship in the conceptual model like TCP/IP and OSI.	A
SZ24B - Open Source	CO1: Recognize the benefits and features of Open Source Technology.	U
Technologies	CO2: Interpret, contrast and compare open source products among themselves.	U
	CO1 : Obtain a general understanding of basic business management concepts.	U
SZ24C - E-Commerce Technologies	CO2: Have complete knowledge about basic technical concepts relating to E-Commerce.	U
	CO3: Understand the security issues, threats and challenges of E-Commerce.	U
	CO1: Learn the theory and practices of cost accounting	U
SZ34A - Cost And Management Accounting	CO2: Classify and assess Material cost, labour cost cost and overhead to ensure effective utilization of Materials and labour.	U
	CO3: Understands the concepts of management accounting.	U
\$7241 - Open Source Lab	CO1 : Use appropriate open source tools based on the nature of the problem.	Р
SZ241 - Open Source Lab	CO2 : Code and compile different open source software.	Р



Course Code & Course Name	Course Outcomes At the end of this course the students will be able to	Cognitive Level
ENV4B - Environmental	CO1: Explain the concepts of ecosystem and biodiversity.	U
studies	CO2: Explain the environmental problems, policies and practices.	U
	CO1: Explain the basic concepts of quantitative aptitude.	U
TSSEN - Quantitative Aptitude	CO2: Recall the formula to get the solution of the problems	U
	CO3: Classify data and interpret them graphically.	U
	III Year - V Semester	
SU25A - Software	CO1 : Specify software requirements, design the software using tools.	U
Engineering	CO2 : Write test cases using different testing techniques.	U
	CO1 : Understand the structure and functions of Operating System.	U
	CO2 : Compare the performance of Scheduling Algorithms.	U
SE25B - Operating System	CO3 : Analyze resource management techniques.	U
	CO4 : Identify the features of I/O and File handling methods.	U
	CO1 : Describe basic concepts of database system.	U
SE25C - Relational	CO2 : Design a Data model and Schemas in RDBMS.	С
Database Management System	CO3 : Competent in use of SQL.	U
	CO4: Analyze functional dependencies for designing robust Database.	A
	CO1 : Understand the process management policies and scheduling process by CPU.	U
SE251 - Operating System Lab	CO2 : Analyze the memory management and its allocation policies.	A
	CO3 : Evaluate the requirement for process synchronization.	Е
	CO1 : Implement the DDL , DML Commands and Constraints.	Р
SE252 - PL / SQL Lab	CO2 : Create, Update and query on the database.	Р
	CO3 : Design and Implement simple project with Front End and Back End.	P



Course Code & Course Name	A Unit of \$10 i. S. Jain Educational Boolety Reacception by NAAC Affiliated to University of Maurias An 100 Odd 12015 Centrical Authoritions Course Outcomes At the end of this course the students will be able to	Cognitive Level
	CO1: Make use of simplex method to solve optimization problems	P
	CO2 : IUtilize PERT and CPM in project management	U
SZ45C - Resource	CO3 : Recall the basic concept of OR	R
Management Technique	CO4 : Explain how to solve the assignment and transportation problems using various techniques.	U
	CO5 : Illustrate how to solve problems using sequencing theory and game theory.	U
	CO6 : demonstrate the Various methods of obtaining random numbers for use in computer simulation.	U
SZ45A - Principles of	CO1 : Understand various security threats.	U
Information Security	CO2 : Understand various encryption algorithms.	U
SU45B - Multimedia and its Applications	CO1: Understand the technologies behind multimedia applications.	U
WAREO W.L. F.L. and	CO1: Understand the basic conceptof values in life.	U
VAE5Q - Value Education	CO2: Acquire the values oriented to education in life.	U
	III Year - VI Semester	
	CO1 : Develop and publish Web pages using Hypertext Markup Language (HTML).	Р
SZ26A - Web Design and	CO2 : Optimize page styles and layout with Cascading Style Sheets (CSS).	U
DevelopmentSZ26A	CO3 : Understand, analyze and apply the role of languages to create a capstone.	U
	CO4 : Develop website using client-side web programming languages like HTML, DHTML, CSS, XML, JavaScript, and AJAX.	Р
	CO1 : Have knowledge in data mining concepts.	U
SZ26B - Data Mining	CO2 : Apply Data mining concepts in different fields.	Р
	CO1 : Explain the basics of mobile application development.	U
SZ26C - Mobile Application Development	CO2 : Develop Android application with User interface, networking and animation.	Р
	CO3 : Use simulator tools to test and publish the application.	Р
SZ261 - Mobile	CO1 : Use GUI components to design real time applications.	Р
Application Development lab	CO2 : Use Emulator tools to design and develop applications.	P



Course Code & Course Name	Course Outcomes At the end of this course the students will be able to	Cognitive Level
	CO1: Use of Devices, Gateways and Data Management in IoT.	U
SU46B -IoT and its Applications	CO2 : Design IoT applications in different domain and be able to analyze their performance.	С
	CO3 : Implement basic IoT applications on embedded platform.	U
	CO1 : Write R program to pre-process the data for analytics.	U
SU46A - Data Analytics using R	CO2 : Understand the various methods to analyze the data and create models.	U
	CO3 : Present the analytics results to using visualization techniques.	A
SZ46A - Software Project Management	CO1: Gain knowledge to train software project managers and other individuals involved in software project planning and tracking and oversight in the implementation of the software project management process.	U
SZ26Q - Mini Project	CO1: Develop a computer based solution for real life problem.	Р