

INDIRA PRIYADARSHINI COLLEGE, CHHINDWARA (M.P.)

CONSPECTUS

CLASS- B.C.A. I Sem.

SUBJECT – Fundamentals of Programming

Date	Unit	Proposed Contents	Remark
01 Aug 14 - 06 Aug 14	I	Program and Algorithm, Flowcharting, Requirements for solving problems using a computer,	
07 Aug 14 – 12 Aug 14		Problem definition phase, Problem solving strategies, Topdown design, Breaking the problem into sub problems.	
13 Aug 14 - 18 Aug 14		Choosing a suitable data structure, Construction of loops, Initial condition for loops, Iterative, Construct Loop termination,	
19 Aug 14 - 24 Aug 14		Algorithm implementation, Modularity, Debugging, Program testing, and Efficiency of algorithm computational,	
25 Aug 14 - 31 Aug 14		Complexity, Worst, Average and Best behaviors.	
01 Sep 14 - 06 Sep 14	II	Pascal fundamentals, Structure of Pascal,	
07 Sep 14 – 12 Sep 14		Pascal character set, Reserved words, Identifier, Scalar and user defined data type,	
13 Sep 14 - 18 Sep 14		Statement and operators, Expression, Pascal syntax diagrams, Control structure,	
19 Sep 14 - 24 Sep 14		Procedures, Functions, Loop structures,	
25 Sep 14 - 30 Sep 14		IF, CASE and GOTO structure, Nested control structure,.	
01 Oct 14 - 06 Oct 14	III	Arrays , One & Multi dimensional, Operations,	
07 Oct 14 – 12 Oct 14		Strings and string variables, Variable length array parameters,	
13 Oct 14 - 18 Oct 14		Records and files, Defining and processing a record,	
19 Oct 14 - 24 Oct 14		Defining, Creating and Reading a sequential file,	
25 Oct 14 - 31 Oct 14		Updating Sequential file, Text file, Printing output data.	
01 Nov 14 - 06 Nov 14	IV	List and Pointers: Introduction to list, Linked list,	
07 Nov 14 – 12 Nov 14		Pointer, Pointer type definition, Variable declaration,	
13 Nov 14 - 18 Nov 14		Operation with pointer variables, Object variables,	
19 Nov 14 - 24 Nov 14		Dynamic variables,	
25 Nov 14 - 30 Nov 14		Creating and Destroying dynamic variables.	

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CLASS- **B.C.A. I Sem.**

SUBJECT – **Elements of Operating System**

Date	Unit	Proposed Contents	Remark
01 Aug 14 - 06 Aug 14	I	Computer system overview, Basic elements,	
07 Aug 14 – 12 Aug 14		Processors registers,	
13 Aug 14 - 18 Aug 14		Instruction execution, Interrupt processing,	
19 Aug 14 - 24 Aug 14		Memory hierarchy, Cache memory,	
25 Aug 14 - 31 Aug 14		I/O communication techniques.	
01 Sep 14 - 06 Sep 14	II	Operating system, Objectives, Functions,	
07 Sep 14 – 12 Sep 14		Services, Resource Manager, Types of Operating system,	
13 Sep 14 - 18 Sep 14		Serial processing, Batch system,	
19 Sep 14 - 24 Sep 14		Time sharing, Distributed Operating system,	
25 Sep 14 - 30 Sep 14		Achievements of operating system.	
01 Oct 14 - 06 Oct 14	III	Process Description and Control, Process states,	
07 Oct 14 – 12 Oct 14		Two states, The creation and Termination of process,	
13 Oct 14 - 18 Oct 14		Five state, Control structure,	
19 Oct 14 - 24 Oct 14		Process attributes,	
25 Oct 14 - 31 Oct 14		Process Control.	
01 Nov 14 - 06 Nov 14	IV	Memory management, Relocation, Protection, Sharing,	
07 Nov 14 – 12 Nov 14		Logical organization, Physical organization, Loading programs,	
13 Nov 14 - 18 Nov 14		Fixed partitioning, Dynamic partitioning,	
19 Nov 14 - 24 Nov 14		Relocation, Simple paging, Simple segmentation,	
25 Nov 14 - 30 Nov 14		Loading & Linking.	

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CONSPECTUS

CLASS- **B.C.A. I Sem.**

SUBJECT- **Financial Accounting**

Date	Unit	Proposed Contents	Remark
01 Aug 14 - 06 Aug 14	I	Meaning and scope of accounting,	
07 Aug 14 – 12 Aug 14		accounting principles,	
13 Aug 14 - 18 Aug 14		System of book keeping and	
19 Aug 14 - 24 Aug 14		accounting,	
25 Aug 14 - 31 Aug 14		Accounting concepts.	
01 Sep 14 - 06 Sep 14	II	Journalize transactions - Rules for debit and credit,	
07 Sep 14 – 12 Sep 14		Debit and credit,	
13 Sep 14 - 18 Sep 14		Compound Journal entry,	
19 Sep 14 - 24 Sep 14		Ledger posting,	
25 Sep 14 - 30 Sep 14		Sub division of Journal trial Balance.	
01 Oct 14 - 06 Oct 14	III	Capital and	
07 Oct 14 – 12 Oct 14		Revenue items,	
13 Oct 14 - 18 Oct 14		final accounts,	
19 Oct 14 - 24 Oct 14		Depreciation.	
25 Oct 14 - 31 Oct 14		Depreciation.	
01 Nov 14 - 06 Nov 14	IV	Share Capital - Shares,	
07 Nov 14 – 12 Nov 14		Issue of Shares & Debentures,	
13 Nov 14 - 18 Nov 14		Calls in arrears,	
19 Nov 14 - 24 Nov 14		Call in advance,	
25 Nov 14 - 30 Nov 14		For features of shares - simple problem.	

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CONSPECTUS

CLASS- **B.C.A. I Sem.**

SUBJECT- **Elementary Mathematics**

Date	Unit	Proposed Contents	Remark
01 Aug 14 - 06 Aug 14	I	Definition and types of matrices, Operations on matrices, Ad-joint and Inverse of a matrix,	
07 Aug 14 – 12 Aug 14		Systems of homogeneous linear equations by using inverse of matrix.	
13 Aug 14 - 18 Aug 14		Determinants: their properties and solutions, Applications with examples. Complex numbers and their conjugates,	
19 Aug 14 - 24 Aug 14		Modulus, Important facts about complex number,	
25 Aug 14 - 31 Aug 14		their polar forms and square roots, locus of an arbitrary point $p(x+iy)$.	
01 Sep 14 - 06 Sep 14	II	Real functions and their relationship between degrees and radians,	
07 Sep 14 – 12 Sep 14		Derivations of sine, cosine and tangents of angles in triangles,	
13 Sep 14 - 18 Sep 14		some exercises based on these ratios, determination of these ratios,	
19 Sep 14 - 24 Sep 14		Inverse trigonometric functions and their determination,	
25 Sep 14 - 30 Sep 14		Graphs of inverse functions.	
01 Oct 14 - 06 Oct 14	III	Differentiation derivative of a function,	
07 Oct 14 – 12 Oct 14		Differentiation of important functions, product and quotient rules of differentiation, nth derivative,	
13 Oct 14 - 18 Oct 14		Applications of the derivatives – Motion in a straight line,	
19 Oct 14 - 24 Oct 14		Motion under gravity, Rate of change of quantities,	
25 Oct 14 - 31 Oct 14		Increasing and decreasing functions, Maxima and Minima.	
01 Nov 14 - 06 Nov 14	IV	Linear equation in two variables and its graph,	
07 Nov 14 – 12 Nov 14		system of two linear equations in two variables,	
13 Nov 14 - 18 Nov 14		Solution of the system of equations by graphical method.	
19 Nov 14 - 24 Nov 14		Conic-section: General Equation of circle, Parabola,	
25 Nov 14 - 30 Nov 14		Ellipse, Hyperbola and its problems.	