Practical Syllabus
of
B.A. Computer Science

w.e.f. 2013-14

Computer Practical Syllabus For B.A.

B.A.II Semester

Paper-III **Max. Marks 60** **Examination Time: 6 Hrs**

Session-I
PC-Software

Windows: Basics of Windows. Windows History, Basic components of windows, icons, types of icons, taskbar, activating windows, using desktop, title bar, running applications, Windows explorer, managing files and folders, Configuring System devices. Control panel , using windows accessories.

Documentation Using Word - Introduction to Office Automation, Creating & Editing Document, Formatting Document, Auto-text, Autocorrect, Spelling and Grammar Tool, Document Dictionary, Page Formatting, Bookmark, Advance Features of MS-Word-Mail Merge, Macros, Tables, File Management, Printing, Styles, linking and embedding object.

Electronic Spread Sheet using Excel - Introduction to MS-Excel, Creating & Editing Worksheet, Formatting and Essential Operations, Formulas and Functions, Charts, Advance features of MS-Excel-Pivot table & Pivot Chart, Linking and Consolidation, Database Management using Excel-Sorting, Filtering, Table, Validation, Goal Seek, Scenario.

Presentation using PowerPoint: Presentations, Creating, Manipulating & Enhancing Slides, Organizational Charts, Excel Charts, Word Art, Layering art Objects, Animations and Sounds, Inserting Animated Pictures or Accessing through Object, Inserting Recorded Sound Effect or In-Built Sound Effect.

Session-II
Programmming in C

Structure of a C Program. Elements of C: C character set, identifiers and keywords, Data types, Constants and Variables, Assignment statement, Symbolic constant. Input/output: Unformatted & formatted I/O function, Input functions (scanf(), getch(), getche(), getchar(), gets()), output functions (printf(), putch(), putchar(), puts()).

Operators & Expression: Arithmetic, relational, logical, bitwise, unary, assignment, conditional operators and special operators. Arithmetic expressions, evaluation of arithmetic expression, type casting and conversion, operator hierarchy & associativity. Decision making & branching: Decision making with IF statement, IF-ELSE statement, Nested IF statement, ELSE-IF ladder, switch statement, goto statement.

Decision making & looping: For, while, and do-while loop, jumps in loops, break, continue statement.

Functions: Definition, prototype, passing parameters, recursion.
Storage classes in C: auto, extern, register and static storage class, their scope, storage, & lifetime.

Arrays: Definition, types, initialization, processing an array. Structure and Union.

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B.A.IV Semester

Paper-III **Max. Marks: 60** **Examination Time: 6 Hrs**

Session-I

Data Structure implementation using 'C'

Strings: Introduction, strings, String operations, Pattern matching algorithms
Arrays: Representation of linear array in memory, Traversal, Insertions, Deletion in an array, Multidimensional arrays, Parallel arrays, Sparse matrix. Linked List: Introduction, Array vs. linked list, Representation of linked lists in memory, Traversal, Insertion, Deletion, Searching in a linked list, Header linked list, Circular linked list, Two-way linked list, Garbage collection, Applications of linked lists. Algorithm of insertion/ deletion in SLL.
Stack: primitive operation on stack, algorithms for push and pop. Representation of Stack as Linked List and array, Stacks applications : polish notation, recursion.
Primitive Operations on the Queues, Circular queue, Priority queue, Representation of Queues as Linked List and array, Applications of queue. Algorithm on insertion and deletion in simple queue and circular queue.
Trees Representations using Array & Linked List, Basic operation on Binary tree, Traversal of binary trees:- In order, Preorder & post order, Applications of Binary tree. Algorithm of tree traversal with and without recursion. Representation of graphs.

Session-II

Programming with C++

Class and Objects, Data Hiding & Encapsulation, Structures, Data members and Member functions, Scope resolution operator and its significance, Static Data Members, Static member functions, Nested and Local Class, Accessing Members of Class and Structure.
Constructor, Initialization using constructor, types of constructor– Default, Parameterized & Copy Constructors, Constructor overloading, Default Values to Parameters, Destructors, Console I/O: Hierarchy of Console Stream Classes, Unformatted and Formatted I/O Operations.
Manipulators, Friend Function, Friend Class, Arrays, Array of Objects, Passing and Returning Objects to Functions, String Handling in C++, Dynamic Memory Management: Pointers, new and delete Operator, Array of Pointers to Objects, this Pointer, Passing Parameters to Functions by Reference & pointers.
Static Polymorphism: Operator Overloading, Unary & Binary Operators Overloading, Function Overloading, Inline Functions, Merits/Demerits of Static Polymorphism.

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SCHEME OF EXAMINATION FOR COMPUTER SCIENCE PRACTICAL

(2020-21)

Class	Paper	Syllabus	Max. Marks	Time
B.A.-I Year	Paper-III	PC-Software Programming in C	100	6 hours
B.A.-II Year	Paper-III	Data Structure implementation using 'C' Programming with C++	100	6 hours
B.A.-III Year	Paper-III	Web Designing using HTML SQL and PL/SQL	100	6 hours

Candidates present in the examination

Examination	Allotted candidates	Present candidates	Absent candidates
BA computer Sc. Practical	17	15	2

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Attendance Chart

Examina on **B.A. II Sem.**

Date of Examina on **06 JULY 2021**

Subject: **Computer**

Paper: **Practical**

Sr. No.	University Roll No.	Attendance
1	201067205	Present
2	201067224	Present
3	201067254	Present
4	201067268	Present
5	201067296	Absent
6	201067345	Present
7	201067346	Present
8	201067347	Present

Principal
Indira Gandhi National College
Ladwa (Dhanora) Kurukshetra

Signature of Principal

I.G.N. COLLEGE LADWA

Total number of Candidates allowed by the Principal: **08**

Total No. of Candidates examined by the Examiner : **07**

Total no. of Candidates absent in the Practical Examina on: **01**

Signature of Practical Examiner (Internal)

I.G.N. COLLEGE LADWA

Attendance Chart

Examination **B.A. IV Sem.**

Date of Examination **03 JULY 2021**

Subject: **Computer**

Paper: **Practical**

Sr. No.	University Roll No.	Attendance
1	191071117	Present
2	191071227	Present
3	191071297	Present
4	191071308	Present
5	191071343	Absent

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Indira Gandhi National College
Ladwa (Dhanora) Kurukshetra
Signature of Principal

I.G.N. COLLEGE LADWA

Total number of Candidates allowed by the Principal: **05**

Total No. of Candidates examined by the Examiner : **04**

Total no. of Candidates absent in the Practical Examination on: **01**

Signature of Practical Examiner (Internal)

I.G.N. COLLEGE LADWA

A endance Chart

Examina on **B.A. VI Sem.**

Date of Examina on **02 JULY 2021**

Subject: **Computer**

Paper: **Practical**

Sr. No.	University Roll No.	A endance
1	180068639	Present
2	180068664	Present
3	180068716	Present
4	180068718	Present

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Ladwa (Bhanera) Kurukshetra

Total number of Candidates allo ed by the Principal: **04**

Total No. of Candidates examined by the Examiner : **04**

Total no. of Candidates absent in the Practical Examina on: **Nil**

Signature of Principal

I.G.N. COLLEGE LADWA

Signature of Practical Examiner (Internal)

I.G.N. COLLEGE LADWA