FACULTY OF COMPUTER SCIENCE & IT

SYLLABUS

of

Computer Science

for

B.A. / B.Sc. (Semester–I& II)
(UnderContinuous Evaluation System)
(12+3 System of Education)

Session: 2018-19

The Heritage Institution

KANYA MAHA VIDYALAYA JALANDHAR
(Autonomous)

Scheme of Studies and Examination
Session 2018-19

Semester- I

Computer Science SemesterI

Course Name	Program Name	Course Code	Course Type	Marks				Examination time (in Hours)
				Total	Ext.		CA	
					L	P		
Computer Science (Computer Fundamentals & PC Software)	B.A-Sem I B.Sc(CS).- Sem I B.Sc(Eco.)-Sem I	BARM-1134 BCSM-1134 BECM-1134	ECE	100	50	30	20	3+3

Semester- II

Computer Science SemesterII

Course Name	Program Name	Course Code	Course Type	Marks				Examination time (in Hours)
				Total	Ext.		CA	
					L	P		
Computer Science (Programming in C)	B.A Sem II B.Sc.- Sem II B.Sc(Eco.)-Sem I	BARM-2134 BCSM-2134 BECM-2134	ECE	100	50	30	20	3+3

B.A/B.Sc COMPUTER SCIENCE

Session 2018-19

SEMESTER- I
Course Code: BARM-1134
BCSM-1134
BECM-1134

COMPUTER FUNDAMENTALS& PC SOFTWARE
(THEORY)

Course Outcomes:

After passing this course the student will be able to:

CO1: Have knowledge of Computer components - hardware and software.

CO2: Use computer system for general tasks at user level, including operative systems and programming environments.

CO3: Learn the basics of Operating System and Programming environment.

CO4: Gain knowledge on office automation software and recognise when to use a particular office program to create professional and academic documents.

CO5: Analyze, design and implement solutions to various problems using algorithms, flowcharts, decision tables and psuedocodes.

B.A/B.Sc COMPUTER SCIENCE

Session 2018-19

SEMESTER- I
Course Code: BARM-1134
BCSM-1134
BECM-1134

COMPUTER FUNDAMENTALS& PC SOFTWARE
(THEORY)

Time: 3+3 Hrs

Max Marks : 100
Theory   :   50
Practical :   30
CA   :   20

Instructions for Paper Setter -
Eight questions of equal marks are to set, two in each of the four sections (A-D). Questions of Sections A-D should be set from Units I-IV of the syllabus respectively. Questions may be divided into parts (not exceeding four). Candidates are required to attempt five questions, selecting at least one question from each section. The fifth question may be attempted from any section.

UNIT–I

1. Introduction to computer and its uses: milestones in hardware and software. Batch oriented/Online/real time application.
2. Computer as a system: basic concepts: stored programs, functional units and their inter–relation: communication with the computer.
3. Data storage devices and media: primary storage: storage addressed, and capacity, type of memory: secondary storage; magnetic tape – data representation and R/W: magnetic disc, fixed & removable, data representation and R/W, floppy disc drives, Winchester disc drive, conventional disc drives, Data organization, Compact Disc.

UNIT -II
1. Input/Output devices: Key–tape/diskette devices, light pen mouse and joystick, source data automation (MICR, OMR, and OCR), screen assisted data entry; portable/hand held terminals for data collection, vision input system.
2. Printed output: Serial, line, page, printers; plotters, visual output; voice response units.

UNIT–III
Introduction to Windows based operating system and Desktop icons

<div align="center">**UNIT–IV**</div>

MS–Word:

Introduction to Word, Introduction to Parts of Word Window (Title Bar, Menu Bar, Tool Bar, The Ruler, Status Area), Page Setup, Creating New Documents, Saving Documents, Opening an Existing documents, insert a second document into an open document, Editing and formatting in document, Headers and Footers, Spell Checking, Printing document, Creating a Table Using the Table Menu and table formatting, Borders and Shading, Templates and Wizards, Mail Merge

MS Power Point:

Introduction to MS Power point, Power point elements, Templates, Wizards, Views, Exploring Power Point Menu, Working with Dialog Boxes, Adding Text, Adding Title, Moving Text Area, Resizing Text Boxes, Adding Art, Starting a New Slide, Starting Slide Show, Saving presentation; Printing Slides, Views (View slide sorter view, notes view, outlines view) Formatting and enhancing text formatting, Creating Graphs (Displaying slide show and adding multi–media).

References:

1. R.K. Taxali: Introduction to Software Packages, GalgotiaPublicaions.

2. MS–Office Compiled by SYBIX

3. MS–Office BPB Publications.

4. Introduction to Computer by P.K. Sinha

5. Windows Based Computer Courses by Gurvinder Singh &Rachpal Singh, Kalyani Publishers.

B.A/B.Sc COMPUTER SCIENCE

Session 2018-19

SEMESTER- I
Course Code: BARM-1134
BCSM-1134
BECM-1134

COMPUTER FUNDAMENTALS& PC SOFTWARE
(PRACTICAL)

Practical based on Computer Fundamental & PC Software

Windows, MS Word, Power Point

B.A/B.Sc COMPUTER SCIENCE

Session 2018-19

SEMESTER- II
Course Code: BARM-2134
BCSM-2134
BECM-2134
PROGRAMMING IN C
(THEORY)

Course Outcomes:
After passing this course the student will be able to:

CO1:Understand problem solving techniques.
CO2:Write different algorithms to solve programming problems.
CO3:Write C Code for given problem.
CO4:Read, Understand, Trace the execution of C Programs.
CO5:Understand different programming elements like Functions, Arrays, Pointers, Structures and File handling

B.A/B.Sc COMPUTER SCIENCE

Session 2018-19

SEMESTER- II
Course Code: BARM-2134
BCSM-2134
BECM-2134

PROGRAMMING IN C
(THEORY)

Time: 3+3 Hrs

Max Marks : 100
Theory   :   50
Practical :   30
CA   :   20

Instructions for Paper Setter -
Eight questions of equal marks are to set, two in each of the four sections (A-D). Questions of Sections A-D should be set from Units I-IV of the syllabus respectively. Questions may be divided into parts (not exceeding four). Candidates are required to attempt five questions, selecting at least one question from each section. The fifth question may be attempted from any section.

UNIT–I

Data Representation, Introduction to Number Systems and Character Codes, Flow Charts, Problem Analysis, decision tables, pseudo codes and, algorithms.

UNIT–II

Programming Languages C:

Basics of C: Introduction to C, Applications and Advantages of C, Tokens, Types of Errors
Data Types: Basic & Derived Data Types, User Defined Data Types, Declaring and initializingvariables.
Operators and Expressions: Types of operators (Unary, Binary, Ternary), Precedence andAssociativity
Data I/O Functions: Types of I/O function, Formatted & Unformatted console I/O Functions

UNIT–III

Control Statements: Jumping, Branching and Looping–Entry controlled and exit controlled,Advantages/Disadvantages of loops, difference between for, while and do–while.
Arrays: Types of Arrays, One Dimensional and Two Dimensional Arrays.
Strings: Introduction to Strings and String functions, array of strings.

UNIT-IV

Functions: User Defined & Library Function, Function (Prototype, Declaration, Definition),Methods of passing arguments, local and global functions, Recursion.
Storage Classes: Introduction to various storage classes, scope and lifetime of a variable, Storage class specifiers (auto, register, static, extern), advantages and disadvantages.
Structure and Union: Introduction to structure and union, pointers with structure.

Books Suggested:

  (i)   Programming with C Languages C. Schaum Series.
  (ii)   YashwantKanitkar – Let Us C
  (iii)   C Programming by Stephen G Kochan
  (iv)   Balaguruswamy: "Programming in ANSIC".

B.A/B.Sc COMPUTER SCIENCE

Session 2018-19

SEMESTER- II
Course Code: BARM-2134
BSEM-2134
BECM-2134

PROGRAMMING IN C
(PRACTICAL)

Practical based on Programming in C