(Annexure G-3)

FACULTY OF COMPUTER SCIENCE & IT

SYLLABUS

OF

B.A./B.Sc. (Semester System) (12+3 System of Education)

COMPUTER APPLICATIONS (VOCATIONAL)

(Semester I- II)

Credit Based Continuous Evaluation Grading System

(CBCEGS)

Batch: 2023-26
Session: 2023-24

The Heritage Institution

KANYA MAHA VIDYALAYA
JALANDHAR
(Autonomous)

Kanya Maha Vidyalaya, Jalandhar (Autonomous)

SCHEME AND CURRICULUM OF EXAMINATIONS OF THREE YEAR DEGREE PROGRAMME

Bachelor of Arts / Bachelor of Science(Economics)

COMPUTER APPLICATIONS (VOCATIONAL)

Session 2023-24

Bachelor of Arts / Bachelor of Science(Economics) Semester-I											
Program Name	**Course Code**	**Course Title**	**Course Type**	**Hours per week**	**Credit**		**Marks**				**Examination Time (in Hours)**
				L-T-P	**L-T-P**	**Total**	**Total**	**Ext.**		**CA**	
								L	**P**		
Bachelor of Arts Sem- I Bachelor of Science (Economics)-Sem I	BARM-1124 BECM-1124	Computer Applications (Vocational) (Computer Fundamentals and PC Software)	E E	3-0-2	3-0-1	4	100	50	30	20	3+3

Kanya Maha Vidyalaya, Jalandhar (Autonomous)

SCHEME AND CURRICULUM OF EXAMINATIONS OF THREE YEAR DEGREE PROGRAMME

Bachelor of Arts / Bachelor of Science (Economics)

COMPUTER APPLICATIONS (VOCATIONAL)

Session 2023-24

Bachelor of Arts / Bachelor of Science(Economics) Semester-II											
Program Name	**Course Code**	**Course Title**	**Course Type**	**Hours per week**	**Credit**		**Marks**				**Examination Time (in Hours)**
				L-T-P	**L-T-P**	**Total**	**Total**	**Ext.**		**CA**	
								L	**P**		
Bachelor of Arts Sem- II Bachelor of Science (Economics)-Sem II	BARM-2124 BECM-2124	Computer Applications (Vocational) (Programming in C)	E E	3-0-2	3-0-1	4	100	50	30	20	3+3

B.A./B.Sc. (Semester System) (12+3 System of Education)

(Semester–I)

(Session 2023-24)

COURSE CODE: BARM-1124
BECM-1124

COMPUTER APPLICATIONS (VOCATIONAL)
(COMPUTER FUNDAMENTALS ANDPC SOFTWARE)

Course Outcomes:

After passing this course the student will be able to:

CO1: comprehend about computer hardware, translators and various software.

CO2: Identify various input, output and memory devices.

CO3: Apply office automation software to create professional and academic documents.

CO4: Apply skills to make effective presentations using associated application software.

B.A./B.Sc. (Semester System) (12+3 System of Education)

(Semester–I)

Session 2023-24

COURSE CODE: BARM-1124
BECM-1124

COMPUTER APPLICATIONS (VOCATIONAL)
(COMPUTER FUNDAMENTALS ANDPC SOFTWARE)

(THEORY)

Examination Time: 3 +3 Hrs.	**Max. Marks: 100**
	Theory: 50
L-T-P: 3-0-1	**Practical:30**
Credits: 4	**CA: 20**

Instructions for Paper Setter -

Eight questions of equal marks (10 marks each) are to be 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

Fundamentals of Computer: Introduction to computer, Applications of computer, Components of computers (Input unit, Output Unit, Memory Unit & CPU), type of Software, Translators (compiler, interpreter, assembler), Booting a System.

UNIT II

Input and Output Devices: Keyboards, Mouse, Joystick, Track Ball, Light Pen and Data Scanning devices (scanner, OCR, OMR, MICR, Bar Code Reader, Card Reader), Monitor, Printers (laser printer, dot matrix printer, ink jet printer).
Memories: Primary Memory-RAM and ROM. Secondary Memory- Hard Disk.
Introduction to Windows based operating system and Desktop icons.

UNIT III

Word Processing: Introduction to word, Parts of window of word (Title bar, menu bar, status bar, and ruler), understanding the Ribbon, Use of Office Button and Quick Access Toolbar, Creation of new documents, opening document.
Page setup, margins, gutters, font properties, Alignment, page breaks, header & footer, deleting, moving, replace, editing text in document, saving a document, spell checker, printing a document.

Creating a table, entering and editing, Text in tables. Changing format of table, height, width of row/column. Editing, deleting Rows, columns in table. Adding picture, page colors and Watermarks, Borders and shading, Templates, Mail Merge.

UNIT IV

PowerPoint Presentation: Introduction to PowerPoint, starting a new slide, saving presentation, moving/rearranging slides, printing slides.

Applying theme to presentation, Views (slide View, slide sorter, notes view, outline view), Formatting & enhancing text formatting.

Creating a graph, displaying slide show, adding multimedia. Slide transitions, applying Animation, Timing slide display, adding movies & sounds**.**

References:

1. Anshuman Sharma, A book of Fundamentals of Information Technology, Lakhanpal Publishers, 5th Edition.
2. Prof. Satish Jain, M. Geetha, Kratika, BPB's Office 2010 Course Complete Book, BPB Publications, 2017.
3. Joyce Cox, Joan Lambert and Curtis Frye, Microsoft office Professional 2010 Step by Step, Microsoft Press, 2010.
4. V. Rajaraman, Neeharika Adabala, Fundamentals of Computers, PHI Learning, 2015.
5. P.K. Sinha, Computer Fundamentals, BPB Publications, 2004.

Note: The latest editions of the books should be followed.

B.A./B.Sc. (Semester System) (12+3 System of Education)

(Semester–I)

Session 2023-24

COURSE CODE: BARM-1124
BECM-1124

COMPUTER APPLICATIONS (VOCATIONAL)
(COMPUTER FUNDAMENTALS AND PC SOFTWARE)

(PRACTICAL)

Examination Time: 3 +3 Hrs. **Max. Marks: 100**

Theory: 50

L-T-P: 3-0-1 **Practical:30**

Credits: 4 **CA: 20**

Practical based on PC Software - Office.

B.A./B.Sc. (Semester System) (12+3 System of Education)

(Semester–II)

Session 2023-24

COURSE CODE: BARM-2124
BECM-2124

COMPUTER APPLICATIONS (VOCATIONAL)
(PROGRAMMING IN C)

Course Outcomes:

After passing this course the student will be able to:

CO1: Comprehend the working of various programming constructs involved in C Programming.

CO2: Apply various operators and control sequence of program using various control statements.

CO3: Apply programming concepts such as arrays, functions and strings to provide solution in different problem domains.

CO4: Work with pointers, structures and union.

B.A./B.Sc. (Semester System) (12+3 System of Education)

(Semester–II)

Session 2023-24

COURSE CODE: BARM-2124
BECM-2124

COMPUTER APPLICATIONS (VOCATIONAL)
(PROGRAMMING IN C)
(Theory)

Examination Time: 3 +3 Hrs.	**Max. Marks: 100**
	Theory: 50
L-T-P: 3-0-1	**Practical:30**
Credits: 4	**CA: 20**

Instructions for Paper Setter -

Eight questions of equal marks (10 marks each) are to be 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 Set, Decision tables, Decision Trees, Flow Charts, pseudo codes and, algorithms.

Programming Using 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 initializing variables.

UNIT–II

Operators and Expressions: Types of operators (Unary, Binary, Ternary), Precedence and Associativity.

Data I/O Functions: Types of I/O function, Formatted & Unformatted console I/O Functions.

Control Statements: Jumping, Branching and Looping–Entry controlled and exit controlled, difference between for, while and do–while.

UNIT–III

Arrays: Types of Arrays, One Dimensional and Two-Dimensional Arrays.

Strings: Introduction to Strings and String functions, array of strings.

Functions: User Defined & Library Function, Function (Prototype, Declaration, Definition), Methods of passing arguments, local and global functions, Recursion.

UNIT-IV

Storage Classes: Introduction to various storage classes, scope and lifetime of a variable, advantages and disadvantages.

Pointers: Introduction, Uses of pointers, Limitations of pointers, Difference between void pointer and Null pointer, Pointer arithmetic, operators not allowed on pointers, Types of Pointer, Passing Pointers to function, concept of pointer to pointer.

Structure and Union: Introduction to structure and union, pointers with structure.

References:

1. E. Balagurusamy, Programming in ANSI C, Tata McGraw-Hill (2002), 5th edition.
2. Stephen G. Kochan, Programming in C, Pearson Education (2015), 4th edition.
3. Rachhpal Singh K.S. Kahlon, Gurvinder Singh, Programming in C, Kalyani Publishers (2011).
4. YashwantKanetkar, Let us C, BPB Publications (2020), 17th edition.
5. R.S. Salari, Application Programming in C, Khanna Book Publishing (2012), 4th edition.
6. Anshuman Sharma, Learn programming in C, Lakhanpal Publishers (2016), 7th edition.

B.A./B.Sc. (Semester System) (12+3 System of Education)

(Semester–II)

Session 2023-24

COURSE CODE: BARM-2124
BECM-2124

COMPUTER APPLICATIONS (VOCATIONAL)
(PROGRAMMING IN C)
(PRACTICAL)

Examination Time: 3 +3 Hrs.	**Max. Marks: 100**
	Theory: 50
L-T-P: 3-0-1	**Practical:30**
Credits: 4	**CA: 20**

Lab based on Programming in C.