

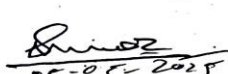
MASTER OF COMPUTER APPLICATIONS
BRIDGE COURSE FOR NON COMPUTER BACKGROUND STUDENTS

SCHEME OF TEACHING AND EXAMINATIONS

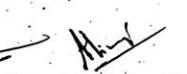
Subject Code	SUBJECTS	Teaching Load Per Week			Examination Marks							
					Max. Marks				Min. Marks			
		L	T	P	Th	Ses	Pr	Total	Th	Ses	Pr	Total
BCMCA101	Computer Fundamental	2	-	-	100	50	-	150	40	30	-	70
BCMCA102	Programming in "C"	2	-	-	100	50	-	150	40	30	-	70
BCMCA103	Practical Based on BCMCA102 & Office Automation	-	-	1x2	-	25	100	125	-	15	50	65
	TOTAL	4	-	2	200	125	100	425	80	75	50	205

NOTE :

1. Student has to clear bridge course examination before appearing in the examination of Fourth Semester of the course.
2. Bridge Course will be Non Credential.
3. Bridge course shall not be treated as a core subject and hence will not be counted for ATKT examination and also not be considered for deciding division.
4. Examination for bridge course shall be conducted along with ATKT examination also.


(Dr. Sanjay Kumar)


(Dr. V.K. Pafle)


(Dr. A.K. Tiwari)

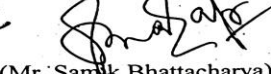

(Dr. Vibha Dubey)


(Dr. Pooja Rathi)


(Mr. Manu Rawani)


(Miss. Vartika Shrivastav)


(Dr. Pranjali Dewangan)


(Mr. Samik Bhattacharya)

BRIDGE COURSE : BCMCA101

Computer Fundamentals

Max Marks: 100

Min Marks: 40

NOTE: The Question Paper setter is advised to prepare unit-wise question with the provision of internal choice. Only Simple calculator is allowed not scientific calculator.

Course Outcomes

- Bridge the fundamental concepts of computers with the present level of knowledge of the students.
- Student will come to know about different input and output devices.
- Understand the basics of digital computer along with different storage unit.
- Familiarize operating systems, programming languages, peripheral devices, networking, multimedia and internet
- Understand different types of software.

Syllabus

UNIT-I:

Introduction to Computers: Definition, Characteristics and capabilities of computer system: Speed, Accuracy, Reliability, Memory capability. Block Diagram of a Computer, Computer Hardware and Software, Different Types of Software. Types of Computers: Analog, Digital, Hybrid General and Special Purpose Computers. Generation of Computers.

UNIT-II:

Computer Organization: Input Devices: Keyboard, Card Readers. Scanning Devices – O.M.R., Character Readers, MICR and Smart Cards. Pointing Devices-Mouse, Light Pen. **Output Devices:** Printers, Plotters, **Central Processing Unit:** The Microprocessor, control unit, A.L.U., Main Memory, Random Access Memory, and Read Only Memory (ROM).

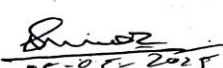
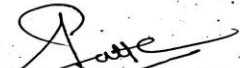



UNIT-III:


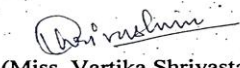

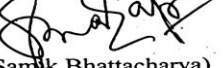
Operating System: Software-Types of Software, System software Vs. Application Software, Operating system and its types. Language Processors, Assembler, Compiler & Interpreter. Introduction of DOS: DOS, System Files. Internal and External DOS Commands.

UNIT-IV:

Office Automation: MS-Word: - Creating and editing word document, formatting documents, word art, graph, mail merge. **MS-Excel:** Introduction to spread sheet, formatting in cell and text, functions, creating chart and graph. **MS-PowerPoint:** creating presentation, working with slides, slide transition, animating object.

UNIT-V:

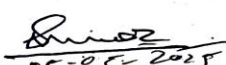
 (Dr. Sanjay Kumar)  (Dr. V.K. Pafle)  (Dr. A.K. Tiwari)  (Dr. Vibha Dubey)  (Dr. Pooja Rathi)

 (Mr. Manish Rawani)  (Miss. Vartika Shrivastav)  (Dr. Pranavi Dewangan)  (Mr. Sanjay Bhattacharya)


Computer Network: Introduction to Computer Network, Internet, Types of Computer Network, Commonly used Network devices like Router, Bridge, Switch, RJ45, RJ11, Ethernet. Firewall, WWW, Brief overview of Network Security.

Books Recommended


- | | |
|--|---|
| 1. Computer Fundamentals | : P.K Sinha BPB Publications |
| 2. Fundamental of Information Technology | : Chetan Shrivastava_Kalyani Publishers |
| 3. Fundamental of Computer | : V.Rajaraman |
| 4. Computer today | : Sanders D.H |


(Dr. Sanjay Kumar)

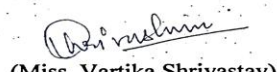

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BRIDGE COURSE : BCMCA102

Programming In 'C'

Max Marks: 100

Min Marks: 40

NOTE: The Question Paper setter is advised to prepare unit-wise question with the provision of internal choice. Only Simple calculator is allowed not scientific calculator.

Course Outcomes

- Student will understand the basic terminology used in computer programming and will be able to design programs involving decision structures, loops, functions and Arrays.
- Student will understand the different data structures and create/update basic data files.
- Skills - At the end of the course, a student will be able to :
 - a) Analyse a simple programming problem specification.
 - b) Design a high-level (programming language independent) solution to the problem using functional abstraction and general imperative programming language constructs. Write, compile, execute and debug a C program which maps the high-level design onto concrete C programming constructs

Syllabus

UNIT – I : Overview of C :

History of C, Importance of C, Data types, Operators and Expressions, Basic Structure of C Programs, Keywords and Identifiers.

UNIT – II : Decision Making and Looping :

Control Structure: Simple if Statement, The if...else Statement, Nesting of if...else Statements, The Else if Ladder, Loops: The while Statement, The for Statement, The do Statement, Break and Continue Statement, Switch Statement, The goto Statement.

UNIT – III : Pointers and Functions :

Introduction to Pointers, Accessing the address of a Variable, Declaring Pointer Variables, Void Pointer, User-defined Functions: Function Calls, Call by Value, Call by Reference, Recursive Function.

UNIT – IV : Arrays :

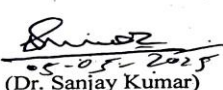

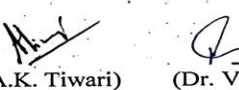
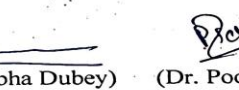
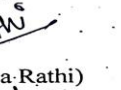

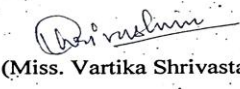
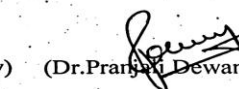
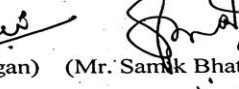
Introduction to an Array: Types of Arrays, One-dimensional Arrays, Two-dimensional Arrays, Multi-dimensional Arrays, passing Arrays to Functions.

UNIT – V : Structure and Union :

Defining a Structure, Declaring Structure Variables, Accessing Structure Members, Structure initialization, Arrays of Structure. Defining a Union: Difference between Union and Structure, Operations on Union, Scope of Union.

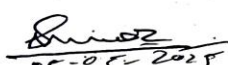
Books Recommended

- | | |
|---------------------|----------------------|
| 1. Programming in C | - E. Balaguruswamy |
| 2. Let us C | - Yashwant Kanetkar. |


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BRIDGE COURSE : BCMCA103
Practical Based on BCMCA102 & Office Automation


1. Programs based on C.
2. Practicals based on MS-Word, MS-Excel, MS-PowerPoint.


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