SHRI SHIVAJI EDUCATION SOCIATY AMRAVATI's
SCIENCE COLLEGE CONGRESS NAGAR,NAGPUR
Department of Computer Science
MCA FIRST YEAR SEMESTER –I
SESSION 2021-22
Bridge course

Bridge course : M.C.A. (2 Years) (CBCS)

	Bridge course	Hours
Unit I	Programming in C language	10
Unit II	Basic Mathematics and Statistics	8
Unit III	Digital Electronics	8
Unit IV	Operating System Concepts	5

Unit I :Programming in C language
- Algorithm and Flowcharts
- C Character set, Tokens, Identifier, Keywords, Variables, Data types, Qualifiers.,Operators and Expressions , Library functions. : Maths, string handling Functions.,Control Structure: Compound Statement, Selection Statement, Iteration statement Arrays: Need, Types: Single and Two Dimensional, Functions, pointers.

Unit II: Basic Mathematics and Statistics
- Mathematical Logic :Connectives, Negation, conjunction, Disjunction, statement formulas and truth tables, conditional and Bi-conditional, well formed formulas, Tautologies, Equivalence of formulas, duality law, Tautologies implications.
- Set Theory:Set, Subsets operations on set, Venn diagram, algebra on sets, Cartesian product of sets, Binary relations, Properties of binary relation, Relation matrix and the graph of relation.
- Measures of Central Tendency - Frequency Distribution, Continuous Frequency Distribution, Graphic Representation of a Frequency Distribution Average or Measures of Central Tendency or Measures of Locations, Requisites for an ideal Measure of Central Tendency Arithmetic: Mean Median, Mode, Geometric Mean and Harmonic Mean, Weighted Average, Relationship amongst different Averages.

Unit III: Digital Electronics
- Number System: Binary, Octal, Decimal and Hexadecimal number system and their inter-conversion. Binary Codes: BCD, Excess 3, Parity, Gray, ASCII and EBCDIC codes, their advantages and disadvantages.
- Logic gates: Truth table, properties and symbolic representation of NOT, AND, OR, NOR, NAND, EX-OR, EX-NOR gates. NOR and NAND gates as a universal gates. Laws and identities of Boolean algebra, DeMorgan's theorem, Use of Boolean algebra for simplification of logic expression, Karnaugh map for 2,3,4 variable, Simplification of SOP and POS logic expression using K-map.

Unit IV: Operating System Concepts

- Structure of Operating System, Operating System functions, Characteristics of Modern OS. Process Management: Process states, Creation, Termination, Operations on Process, Concurrent process, Processes Threads, Multithreading, Micro Kernels. CPU Scheduling: Schedulers, Scheduling Methodology, CPU Scheduling Algorithm: FCFS, SJF, RR, Priority Scheduling.

.Books :
1. Programming in C by E. Balagurusamy TMH Publications.
2. Discrete Mathematical Structures with applications to computer Science By J,P.Tremblay& R. Manohar, (TMH)
3. Discrete Mathematical Structures by Kolman Busby and Ross (pearson)
4. Fundamental of Mathematical Statistics by Gupta and Kapoor
5. Digital Electronics by Gothman(PHI)
6. Digital and analogue technique by Navaneeth, Kale and Gokhale
7. Operating Systems by P. Balakrishna Prasad [Scitech Publication]

Note :.Bridge course is compulsory for all the students who got the admission in MCA course under criteria that candidate Passed B.Sc./ B.Com./ B.A. with Mathematics at 10+2 Level or at Graduation Level. Bridge Course will be conducted by college at the beginning of session for MCA I students in semester I. Only grade point will be given to this course. Examination to this course will be conducted by college and grade point will be given upon their performance and will be communicating to the university before the start of theory examination of MCA I (Sem I) .

Attendance:

Class :-MCA - 1 (Sem-I)
Subject :- Bridge course
Theory / Practical

Shri Shivaji Education Society Amravati;s
Science College, Congress Nagar, Nagpur.
2021 - 2022

Month Name of Teacher :- March 2021
Asfiya Shaikh/Amol Bodkhe

Sr. No	Roll	Students Full Name	Total upto last Month Deli	Att	Periods Date / Contact No.	1 6/03/21	2 02/03/21	3 03/03/21	4 04/03/21	5 05/03/21	6 06/03/21	7 08/03/21	8 09/03/21	9 10/03/21	10 11/03/21	11 12/03/21	12 13/03/21	13 16/03/21	14 16/03/21	15 19/03/21	16 18/03/21	17 19/03/21	18 20/03/21	19 22/03/21	20	Current Month Deli	Att	Progressive Month Deli	Att
1		Pravin b Burde				P	P				1	P	P	P	P	P	P	P	P		P	P	P						
2		Uttam R Awarashe				P		P	P		P	P	P	P	P	P	P	P		P	P	P	P	P					
3	Ku	Mrunali C Gajbhiya				P	P	P		P	P	P			P			P	P	P	P	P	P	P					
4		Pallavi S Kilnake				P	P	P	P	P	P	P	P	P	P	P	P		P	P	P	P	P	P					
5		Megha D Mendhe				P		P	P	P	P	P	P	P	P	P	P	P	P		P		P	P					
6	Ku	Divya S Nakshane				P	P	P	P	P	P	P	P	P	P	P	P	P		P	P	P	P	P					

Prof.Asfiya Sk
Assistant Professor
Department of Computer Science
S.S.E.S. Amt's Science College.
Congress Nagar, Nagpur

SEAL

Prof.S.R. Pande
Professor & Head
Department of Computer Science
S.S.E.S. Amt's Science College
Congress Nagar Nagpur

D. Sc. ESTT / 4TIO / 2022

Date : 29 / 03 / 2022

RTMNU WINTER-2021
Master in Computer Application Part-I (SEM-I) CBCS
Bridge Course Grade Point Report

Sr.No	Name of Students	Grade
1	Pravin B. Burde	A+
2	Uttam R. Awarashe	A+
3	Mrunali C. Gajbhiye	A
4	Divya S. Nakshane	A
5	Pallavi S. Kilnake	A+
6	Megha D. Mendhe	A

Place: Nagpur
Date: 25/03/2022

(Dr. M.P. Dhore)
Principal
S.S.E.S.A's Science College (MCA),
Congress Nagar, Nagpur

No: CELL/4770/2021   Date: 28/03/2022

To
The Director,
Board of Examination & Evaluation,
RTM Nagpur University,
Nagpur

Subject: Submission of MCA-I (Semester-I), Report of Bridge Course Assessment Grade Point
         Winter-2021

Respected Sir,

With reference to above, I am herewith submitting 01 (one) Envelop MCA-I (Sem-I) CBCS,
Report of Bridge Course Assessment Grade point of Bridge Course Examination which is
compulsory for all the student who are admitted to MCA programmed under criteria that candidate
passed B.Sc./B.Com./B.A. with mathematics at 10+2 Level or at Graduation Level. (Direction No.33
of 2020) Winter -2021 along with Gradecopy.

The details of Envelops are as follows-

MCA-I (Semester- I) CBCS	
I	Bridge Course

Kindly accept the same. Please acknowledge and oblige.

Thanking you.

Place: Nagpur
Date: 25/03/2022

(Dr. M.P. Dhore)
Principal
S.S.E.S. A's Science College (MCA),
Congress Nagar, Nagpur

Received 01 One Sealed Envelope
01/04/2022