COMPUTER FUNDAMENTALS :

Bridge Course
MCA-BC1-Foundation of Programming Language
Max. Marks: 100
Time: 3 Hrs.
Note: There shall be nine questions in all. Question no. 1 shall be compulsory, consisting of eight short answer type questions covering the entire syllabus. Two questions will be asked from each unit. Student will have to attempt one question from each unit.
Each question shall carry equal marks.

Unit-1
Computer Fundamentals: Computer definition, Generation, input/output devices, operating System definition and its type.
Software and its type, office: word, power point, excels etc.
Programming concepts using C language: Work with primitive types and expressions ,
basic structure of a C Program, standard I/O, Character Set and Tokens, Data Types, Variables and Constants, Operators and Expressions,
memory allocation.

Unit -II
Control structure and Array: Control the flow of Program using Conditional statements and Loops, Functions and its type, type of arguments passing in function, Arrays and Strings, Pointers, Pointer to an array, Array of pointers, Pointers and functions, Structures and Union.

Unit -III
Object Oriented Concept: concept of OOPS, Characteristics of OOPS, Inheritance, constructor and its type, destructor, static and const
with classes, operator overloading, friend and virtual functions.

Unit-IV
Streams and Files: Streams classes, command line arguments, disk file I/O with streams, file pointers, error handling in file I/O with member function.
Templates and Exceptions: Function templates, Class templates,

Exceptions and its type.

Basic Principles of Management: Introduction to principles of management: Planning, organizing, staffing, Budgeting, Controlling. Scope of IT applications in management, and its benefits, socioeconomic environment and information systems and its impact, Strategic
role of IT in organizations

References:
1. Computer Fundamentals by P.K.Sinha, BP B Publications.
2. Let us C by Yashwant Kanetkar, BP B Publications.
3. Object Oriented Programming with C++ by E. Balagurusamy, The Mc Graw Hill Companies.