GULBARGA UNIVERSITY, KALABURAGI

DEPARTMENT OF COMPUTER SCIENCE

COMMON ENTRANCE TEST SYLLABUS FOR ADMISSION TO MCA COURSE

UNIT-I

Introduction to Digital Computers: Physical & Logical organization of System, Memories, I/O devices, types of Computers, Software's, languages, translators & Operating systems. Boolean algebra, Number Systems, Basic logic Gates.

Programming in C: Elements of C, tokens, identifiers,variables,constants,data types,operators, expressions, control structures, arrays, functions, structures, unions, string handling , pointers & File handling concepts.

UNIT-II

System Analysis and Design: Types of information,Management Structure, Management and Information Requirements, Qualities of Information, Role, Task, and Attributes of a System Analyst, Tools used by the System Analyst, Information Gathering, System Requirement Specification, Feasibility Analysis, Data Flow Diagrams, Process Specification and Decision Tables.

Database Management Systems: Introduction to DBMS, ER Model, Relational data model, Database Design,Normalization,1NF, 2NF, 3NF, BCNF, 4NF and 5NF. SQL Language, DDL, DML, DCL Commands.

UNIT-III

Object-Oriented Programming Concepts: Class, object, instantiation, inheritance, Polymorphism & constructors.

Programming in C++: Elements of C ++, tokens, identifiers,variables,constants,data types, operators, expression, control structures, arrays,functions. Class and objects, Constructors &. Destructors, Overloading, Templates, Inheritance, Polymorphism, Exception handling.

Java and Internet Programming: Elements of Java, tokens, identifiers, variables, constants, data types, Operators,expressions, control structures, arrays, functions. Class and Objects, Constructors & destructors, Overloading, templates, Inheritance, Polymorphism, Exception handling. Threads, applet and Graphics programming. Internet programming-HTML/XML programming.

UNIT-IV

Data Structure Using C++: Arrays, Linked-Lists, Sets, Stacks, Queues, Priority queues, Binary trees, B-Trees, Graphs, Sorting and Searching.

Multimedia & Windows Programming: Elements,Growth & Categories of Multimedia, Multimedia tools, Developing, Producing and Distributing Multimedia. Multimedia issues & Future of multimedia.

Windows Programming: Building Multimedia applications Using Visual Basic. Tool box, Text box Control. Picture box, Label box, Option Button, Frame List box, Data, Command Button, Check box etc. Forms & Control, Variables in VB, Working with Files, Menus, MDI applications, The common dialog control, creating Table, Working with data control, Data access Objects, Data report.

CHAIRMAN
Dept. of Computer Science,
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