

GOVERNMENT COLLEGE (AUTONOMOUS), KALABURAGI
Department of Computer Science (PG &UG)
Entrance Exam Syllabus for Admission for M.Sc Computer Science
(With effect from the Academic year 2019-20 and onwards)

UNIT I

Introduction to Digital computer: input/output devices, software, hardware, operating system, number system, basic logic gates, basic computer organization - units of a computer, CPU, ALU, memory, types of memory.

Programming Language in C: algorithms and flowcharts, basic structure of C program, constants, variables, data types, operators and expressions – input/output statements, control statements - decision and looping statements, arrays, functions, pointers.

UNIT II

System Analysis and Design: management information system, types of information system, MIS requirements, role of MIS, DBA, system analyst, tools used by the system analyst, COBOL - cobol history, cobol coding sheet, cobol division, input/output section, level numbers, accept and display statements.

Database Management System: characteristics of DBMS, data models, DBMS architecture and data independence, entity relationship, ER model constraints, object model, data normalization and its types, SQL - creating and altering tables, data manipulation, command like insert, update, delete, select statement, introduction to PL/SQL - PL/SQL block structure, language construct of PL/SQL (variables, basic and composite data types, condition looping etc.)

UNIT III

Office Automation Tool: documentation using Word - creating & editing document, formatting document, auto-text, autocorrect, spelling and grammar, electronic spread sheet using Excel – creating and editing worksheet, formatting and essential operations, formula and functions, charts, presentation using PowerPoint - presentations, creating slides, animations, sounds, inserting animated pictures etc.

Introduction to the Internet: network, types of network, definition of internet, creating e-mail ID, website, web page, home page, browser basics, basic communication on the internet, searching the web, information resources and the web, downloading and storing data, security on the internet and the web.

UNIT IV

Object-Oriented Programming in C++: principles of OOPs, benefits of OOPs, structure of C++ program, tokens, keywords, data types, variables, operators, input/output, classes and objects, constructors, polymorphism, encapsulation, inheritance, abstraction, functions, arrays of objects.

Data structure using C++: basic terminologies, operations of data structure, types of data structures, arrays, linked list, stack, queue, binary tree, B-tree, graph, searching and sorting techniques.

UNIT V

Programming in Java: elements of Java, keywords, constants, variables and data types, operators and expressions, decision making and looping statements, Classes and objects, applet programming, multithreading, Java AWT.

Programming in VB: introduction to GUI -Visual Basic: starting and exiting visual basic – project explorer, working with forms properties window, using the toolbox, toolbars, adding code and using events- using literals – data types - declaring and using variables, using operator, looping and decision control structures – if then else, for next, do.. loop and while, controls with methods and properties- label, text box, command button, frame, checkbox, option button, list box.