B.Sc (Computer Science) Course Outcome I and II Semester

Semester: I

Course Code: GMA280	Course Title: Computer Fundamentals and Programming in C
Course Credits: 04	Hour of Teaching/Week: 04
Total Contact Hours: 52	Formative Assessment Marks: 40
Exam Marks: 60	Exam Duration: 2 $\frac{1}{2}$ Hours

Course Outcomes (COs):

After completing this course satisfactorily, a student will be able to:

• Confidently operate Desktop Computers to carry out computational tasks

• Understand working of Hardware and Software and the importance of operating systems

• Understand programming languages, number systems, peripheral devices, networking, multimedia and internet concepts

• Read, understand and trace the execution of programs written in C language

• Write the C code for a given problem

• Perform input and output operations using programs in C

• Write programs that perform operations on arrays

Semester: II

Course Code: **GMB280**	Course Title: Data Structures using C
Course Credits: 04	Hour of Teaching/Week: 04
Total Contact Hours: 52	Formative Assessment Marks: 40
Exam Marks: 60	Exam Duration: 2 $\frac{1}{2}$ Hours

Course Outcomes (COs):

After completing this course satisfactorily, a student will be able to:

• Describe how arrays, records, linked structures, stacks, queues, trees, and graphs are represented in memory and used by algorithms

• Describe common applications for arrays, records, linked structures, stacks, queues, trees, and graphs

• Write programs that use arrays, records, linked structures, stacks, queues, trees, and graphs

• Demonstrate different methods for traversing trees

• Compare alternative implementations of data structures with respect to performance

• Describe the concept of recursion, give examples of its use

• Discuss the computational efficiency of the principal algorithms for sorting and searching