

BA/B.Sc. 1 year

105

**28. COMPUTER APPLICATION**

(Common for B.A./B.Com./B.Sc.)

	Science	Com./Arts
Paper I Data Base Management System	50	65
Paper II Structured Programming and Computer Graphics	50	55
Practical Programming Laboratory	50	70

On-the-job training (4 weeks)  
The duration of these papers will be 3 hours.

**Paper I Data Base Management System**

Categorization of DBMS Systems. Network. Hierarchical and relational databases. Application of DBMS systems.

Relational databases management system. Why to use them and where. Data Description Language. Data Manipulation Language and Data Control Language.

Introduction to DBASE, DBASE commands. Development of an application under DBASE using forms, screens and PRG. files. Security considerations in database management systems. Performance improvement in databases.

Relational databases, advanced concepts. Introduction to ORACLE and ORACLE. Similar RDBMS on a multiuser environment.

Structured query language. Form design on a advanced RDBMS. Report generator, Query by example and Report by form. Accessing RDBMS using programming structures.

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System management. User management Security considerations  
Practical.

Design of a database for a business application. Design of data entry forms and report layouts for this database. Creation of programs to access and manipulate database.

Development of a business application in RDBMS.

Paper-II : Structured Programming and Computer Graphics

Introduction. Need of structured programming. Methods of documentation. Methods of analyzing a program requirements. Data flow diagrams. Entity relationship. Flow charts.

Various categories of programming language (3GL, 4GL, etc.), introduction to C and COBOL. Program development in C using structured programming concepts.

Why Graphics: Various types of graphics programs. Drafting packages. DTP packages. Microsoft Windows. Various documentation etc. DTP packages e.g. Wordperfect, Microsoft Word etc.

Introduction to a Pagemaker/Ventura or a similar package. Preparation of documents using DTP package. Formatting. Various fonts and characters set. Various type of printers used in DTP. Introduction to commercial DTP system available in market. Indian language fonts. Preparation of Indian language fonts.

Practical :

Development of a business application using C.

Preparation of a document and publishing it using a DTP System. Creation of fonts.

Managing a Microsoft Window session. Creating groups and program items under Window. Turning Windows for a computer system.