

**RANI DURGAVATI UNIVERSITY, JABALPUR**  
**SYLLABUS FOR COMPUTER APPLICATION (OPTIONAL GROUP)**

**B.Com. Semester - I**

(From Session 2011-12 & onwards)

<b>S.No.</b>	<b>Subject</b>	<b>Max. Marks</b>
1	Computer Fundamentals & Operating System	85
2	CCE	15
	<b>Total Marks</b>	<b>100</b>

# **RANI DURGAVATI UNIVERSITY, JABALPUR**

## **Computer Application (Optional Group)**

**B.COM. - Semester - I (2011-12)**

Paper TITLE - Computer fundamentals and operating system

Marks - 70

### **Unit - I**

What is Computer, Evolution of Computers, their classification & limitations, Generation of Computer, Uses of computers in modern society, Characteristics and Types of desktop, Laptop, Notebook, Palmtop and Workstation. Block diagram of computer processing system, CPU (Control Unit, ALU Registers) Introduction to number systems (Binary, Octal & Hexadecimal) character codes (BCD, EBCDIC and ASCII), Introduction to Software and types of Software.

### **Unit - II**

Input devices and functions-Keyboard, Mouse, Track ball, Joystick, Digitizer, Tablet, Scanners, Digital Camera, OMR, OCR, Barcode reader, Voice Input System Light pen, Touch Screen.

Output Devices and Functions - Characteristic & Type of Monitor, VGA, SVGA, XVGA, LCD Screen etc. Printers - Impact & Non Impact Printers, Character Printer, Line Printer, Page Printer, Plotter.

### **Unit - III**

Memory- Primary (RAM, Dynamic and Static RAM, ROM-PROM, EPROM, EEPROM, Cache, Virtual, Extended and Expanded) and Secondary Memory (Floppy disk and Hard disk with details of cluster, FAT, track,) Power supply and Distribution.

Storage Devices - Function of Storage Devices - Magnetic Tape, Hard disk Drives, Pen Drives, Floppy Disk, CD, VCD, CDR, CD-RW, DVD, DVD-RW.

### **Unit - IV**

What is an operating System, Types of operating system with examples single user (MS-DOS) and Multi-user (UNIX), Functions of operating system- Memory management, CPU Management, File Management, I/O Device Management, Data Management, time sharing, Security, communication

Wild cards, relative and absolute path, Booting System (ROM BIOS, POST, io.sys, msdos.sys, autoexe.bat, Configuration system, Command.com).

Internal and External Commands with Syntax. Internal Commands - CLS, DATE, TIME MD, CD, RD, DEL, PROMT, TYPE, COPYCON, DIR, REN, DELETE, COPY, External Commands- CHKDSK, SCANDISK, MEM, ATTRIB, XCOPY, DISKCOPY, DISKCOMP, BACKUP, RESTORE etc.

### **Unit - V**

Introduction to Windows Xp, Parts of Windows screen - Desktop Icons, Windows, Anatomy of a Window, The title bar, Minimize and Maximize Button, The control Box, Scroll Bars, Scroll Buttons and Scroll Boxes, Changing Screen Saver and Background, Application and Document Windows Changing Date & time.

My Computer, My Documents, Recycle Bin, Creating Folder, Windows Explorer, Searching, Moving files, Copy, Delete and Rename files, Creating Shortcuts.

#### **Reference Books -**

1. Windows Based Computer Course, Gurvinder Singh, English
2. Fundamentals of Information Technology, Chetan Srivastava, English
3. Fundamentals of Computer, Rajaraman, English
4. Fundamental of Computer – A.Mansoor (Pragya) Hindi/English

**RANI DURGAVATI UNIVERSITY, JABALPUR**  
SYLLABUS FOR COMPUTER APPLICATION (OPTIONAL GROUP)

**B.Com. Semester - II**

(From Session 2011-12 & onwards)

<b>S.No.</b>	<b>Subject</b>	<b>Max. Marks</b>
1	PC Package	50
2	Practical	20
3	CCE	30
	<b>Total Marks</b>	<b>100</b>

**RANI DURGAVATI UNIVERSITY, JABALPUR**  
**Computer Application (Optional Group)**

B.COM. - Semester - II (2011-12)

Paper TITLE - **PC PACKAGE**

Marks - 50

**Unit - I**

Introduction to MS-Word, Parts of MS-Word Windows (Title Bar, Menu Bar, Tool Bar, Ruler, Status Area) Creating New Documents, Opening an existing Document, Find and Replacing, Moving and Copying Text, Page setup, Margins and Gutters, Creating a Document using Templates and Wizards.

Text Formatting - Changing Fonts and Fonts and Font size, Make text Bold, Italic and Under line, Spacing, Centre, Right and Left alignment, Page breaks, Headers and Footers, Saving documents,

**Unit - II**

Spell checking, Printing, Creating a Table using Table Menu- Entering and editing text. Selecting, Adding and Deleting Rows and Columns, Changing and Shading template and Wizards, Working with Graphics, Drawing objects, Using frames to position objects. Mail Merge,

**Unit - III**

Introduction to MS-EXCEL, Creating a Simple Worksheet, Entering data into worksheet, Computations in Worksheets, Printing the worksheet, Creating Graphs and charts, What if analysis (Data sort, Fill, Query, Filter) Copying, Renaming, Moving, Adding and Deleting worksheet

Using Formulas and Functions - Formula, Characteristics of Formula, Entering formula, Copying formulas, Types of Functions (date, mathematical, logical, statistical), Function Wizard and Formatting of Using Auto format.

**Unit - IV**

Introduction to MS-POWERPOINT, PowerPoint elements templates, Wizards, Views and Color schemes, Exploring PowerPoint menu, Adding text, Adding title, Adding text area, Resizing text boxes, Adding art starting a New slide, Slide transition effects and other animation effects, Starting a slide show, Saving presentation, Printing slide, Display of Slide show.

**Unit - V**

Introduction to PageMaker, Title bar, Menu bar, Tool box, Preparation of documents using PageMaker, Master Page, Page Setup, Margin, Ruler & guides, Formatting fonts and Character sets, Drop Cap, Spell check & find and replace, Various types of palette (Color, Control, Style), Various types of printers used in PageMaker.

**Reference Books -**

1. Windows based Computer Courses - Gurvinder Singh, English
2. PC Software - Nitin K. Naik, Hindi
3. Office 2000 – Pragya (Hindi/English)

# **RANI DURGAVATI UNIVERSITY, JABALPUR**

## **Computer Application (Optional Group)**

**B.COM. - Semester - II (2011-12)**

### **Practical**

- A. MS Word – Creating, opening, saving & Closing Document , Creating tables in MS-word  
Creating Document using templates & wizard using mail merge graphics.
- B. Creating a worksheet, using formula, Saving files, plotting graphs, doing calculation in  
MS-EXCEL.
- C. Creating table & form in MS ACCESS, Designing form using view.
- D. Creating Using and Printing a presentation in MS-Power Point,
- E. Learning PAGEMAKER menu options, editing and formatting document, saving and  
opening. Inserting and Deleting pages, Multi lingual operations, placement of images and  
printing.
- F. Learning COROL DRAW – Preparing document, page set-up, formatting & Printing,  
opening an existing document, Import & Export an Images.
- G. Introduction to ADOBE PHOTOSHOP. Creating document, Opening & Editing an  
existing document. Import & Export image.

# **RANI DURGAVATI UNIVERSITY, JABALPUR**

SYLLABUS FOR COMPUTER APPLICATION (OPTIONAL GROUP)

## **B.Com. Semester – III**

(From Session 2012-13 & onwards)

<b>S.No.</b>	<b>Subject</b>	<b>Max. Marks</b>
1	Programming in C++	85
2	CCE	15
	<b>Total Marks</b>	<b>100</b>

# **RANI DURGAVATI UNIVERSITY, JABALPUR**

## **B.Com Computer application (Optional Group)**

Semester - III

Paper - I

**PROGRAMMING IN C++**

Max Marks : 85

### **Unit - I**

Algorithms for Problem Solving Flowchart, Flowchart Symbols, Rules of Flowcharting, example of flowchart, what is programming, modular programming, procedure oriented programming,

Object oriented programming concept: Class, Object, Data abstraction & Encapsulation, Inheritance, Polymorphism & Message Passing, Benefits of OOPS.

#### **UNIT - II**

Programming in C++ - Structure of C++ Program, Elements of C++ Tokens, identifiers, data types in C++, Constants and its types Standard input and standard output Statements output – cout, □ Use of << and >> operators

Control Structure in C++ (Sequence, Selection and Iteration), Structured data types in C++ arrays, What is Function , recursive function , Inline Function.

#### **UNIT – III**

Structure of class , declaration of class , member function, declaring function outside of class , Constructors , default constructor , constructor overloading, Destructors , Friend function , polymorphism - Virtual Function , this pointer. Create program using class.

#### **UNIT – IV**

What is function Overloading, rules for function overloading, function Operator overloading- Rules for Operator overloading, Overloading Unary Operator, Overloading Binary Operator, overloading assignment operator Pointers : Declaration and Initialization of Pointers

#### **UNIT – V**

Inheritance: Introduction, types of derivation – public, private, protected inheritance. Types of Inheritance (Simple, Multilevel, Multiple, Hierarchical and Hybrid). Create program using inheritance.

#### **Reference Books -**

1. Programming in C++ - Balaguruswami, English
2. Programming with C++ (2<sup>nd</sup>) – D. Ravi Chandran
3. C++ Programming - Hemant Kumar Goyal, Hind

# RANI DURGAVATI UNIVERSITY, JABALPUR

B.Com.III (CA) Practical List  
Subject: oops & programming in C++

1. Write a program to find given number is Armstrong or not.
2. Write a program to demonstrate simple class.
3. Write a program for swapping with function using call by reference.
4. Write a program to check whether entered number is
5. prime or not.
6. Write a program to find factorial of given number using recursion function.
7. Write a program to demonstrate constructor overloading.
8. Write a program to illustrate function overloading.
9. Write a program to find average of 3 numbers in FoxPro.
10. Write a program to print

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11. Write a program to check whether entered string is palindrome or not.
12. Write a program to print Fibonacci series.
13. Write a program to demonstrate single inheritance.
14. Write a program to demonstrate multilevel inheritance.
15. 13. Write a program to demonstrate hybrid inheritance.
16. 14. Write a program to overload a binary operator.
17. 15. Write a program to overload a unary operator.



**RANI DURGAVATI UNIVERSITY, JABALPUR**

**SYLLABUS FOR COMPUTER APPLICATION (OPTIONAL GROUP)**

**B.Com. Semester - IV**

(From Session 2012-13 & onwards)

<b>S.No.</b>	<b>Subject</b>	<b>Max. Marks</b>
1	Relational Database Management System	50
2	Practical	35
3	CCE	15
	<b>Total Marks</b>	<b>100</b>

# **RANI DURGA VATI UNIVERSITY, JABALPUR**

## **B.Com Computer application (Optional Group)**

Semester - IV

Paper - I

### **RELATIONAL DATA BASE MANAGEMENT SYSTEM**

max marks – 50

practical – 50

#### **Unit - I**

Introduction to Data Base, Database files, records & fields, problems with manual database, using computers for database, categorization of DBMS systems (Networks, Hierarchical & Relational databases), what is RDBMS, Application of RDBMS system, Advantages and limitations over DBMS.

#### **Unit - II**

Definition of CODD's rules, Important components-database manager, DDL, DML, DCL, query processor, data dictionary, concept of entities, attributes & relationships, ER diagrams, basic concept associated with Normal forms.

#### **Unit - III**

Introduction to ORACLE, oracle architecture and product history, Introduction to SQL, SQL operators, data types DDL commands(create table, alter table, drop table, create view, rename, create index) DML commands of SQL, (select distinct, select from where, select from where order by, select group by clause, select group by having clause, insert into, update, delete) DCL commands of SQL (Rollback, revoke, grant).

#### **Unit - IV**

SQL aggregate functions (sum, avg, max, min, count) SQL Character functions (Lower, upper, length, substr, RPAD, LPAD) SQL arithmetic functions (Round, trunc, sqrt, mod, abs, sine) conversion functions and other miscellaneous functions. Joining Multiple Tables (equi joins), Joining a table to itself (self join), sub queries, union, intersects and minus clause.

#### **UNIT - V**

Report using SQL plus (specifying column heading, formatting columns char formats, break, inserting spaces after every row, break on multiple column with different spacing, page size, line size, pause).

Introduction of PL/SQL, PL/SQL data types, Using PL/SQL Blocks in the SQL\*plus Environment, control statements(if-the-else, loop, while-loop, for-loop), error handling in PL/SQL, introduction to cursor handling, types of cursor(Explicit Cursor & Implicit Cursor), general cursor attributes.

#### **Reference Books -**

1. Oracle 8i - Freeman & Blomberg, English
2. Simplified approach to Oracle- Prateek Bhatia, Sanjiv Datta, Ranjit Singh
3. Oracle & Developer 2000 - Ivan Bay Rose, English
4. A to Z Oracle - Hemant Kumar Goyal, Hindi

# **RANI DURGAVATI UNIVERSITY, JABALPUR**

## **B.Com Computer Application (Optional)**

Semester IV

Practical

- A. Use of SQL commands: DDL, DML, & DCL(Command)
- B. Using PL/SQL block , Using PL / SQL Cursors, Creating Reports using SQL, Using SQL function.
- C. 1.Create table student with unique constraints on column name, not null constraints on address, check constraints on the course column so that course entered in upper case and only the course “BCA”, “B.Com.”, “BBA” are allowed, check constraints in the mob. column so that only 10 digits allows in the column value, DOB where Roll is the primary key.
- D. Insert records in the student table.
- E. Create table marks with primary key as Roll, sub, obt, and foreign key as roll referencing column roll in the students.
- F. Insert records in marks table.
- G. Print all the records which are having the course B.Com from student.
- H. Print total marks and percentage for each student separately from marks.
- I. Print max total from marks.
- J. Print \*\* in the beginning of course B.Com and BCA (do not use update) from student.
- K. Print all the students’ records that have char ‘a’ in 3rdposition in name column from student.
- L. Print all the name from the student in the little case.
- M. Write a cursor for those students are fail in exam.
- N. Write a PL/SQL block for exception handling.
- O. Write a function to calculate a grade.
- P. Write a PL/SQL block to calculate even/odd number.
- Q. Write a procedure for inserting records in students table.

**RANI DURGAVATI UNIVERSITY, JABALPUR**

**SYLLABUS FOR COMPUTER APPLICATION (OPTIONAL GROUP)**

**B.Com. Semester – V**

(From Session 2012-13 & onwards)

<b>S.No.</b>	<b>Subject</b>	<b>Max. Marks</b>
1	E-Commerce and Accounting Package	85
2	CCE	15
	<b>Total Marks</b>	<b>100</b>

# **RANI DURGAVATI UNIVERSITY, JABALPUR**

## **B.Com Computer application (Optional Group)**

Semester – V

Paper – I

**E-COMMERCE AND ACCOUNTING PACKAGE**

Max Marks : 85

### **UNIT - I**

Introduction to Internet, Web Browsers, www, types of network – LAN and WAN, E-mail Basics - Working with E-mail, how to send and receive e-mails. Search Engine.

E-Commerce : Business Operations; E-Commerce Practices vs traditional business practices; Benefits of e-commerce to organization, consumers and society; Limitation of e-commerce; Management issues relating to e-commerce.

### **UNIT - II**

Operations of E-Commerce, Credit Card transaction, Secure Hypertext Transfer Protocol, Electronic Payment Systems, Secure Electronic transaction, Broker based Service, Online travel tourism services, Benefits and impact of e-commerce on travel industry, Real estate market, Online stock trading and its benefits, Online Banking and its benefits,

### **UNIT - III**

Introduction to E-Governance, EDI in governance, E-Government, E-governance-application of the internet, concept of government-to-business, business-to-government and citizen-to-government, e-governance models.

### **UNIT - IV**

**Accounting Information System** : Basics of Accounting Practices and Preparation of Final Accounts. Introduction to Computerized Accounting Information Systems. Distinction between Manual and Computerized Accounting Information Systems, Accounts Payable Systems, Accounts Receivable System.

Introduction to Tally, Creating New Company, Creation of Groups and Accounts, Making vouchers entries, working with dates and all menus of Tally package, Generation of Reports Recording of Inventory

### **UNIT - V**

Basic concepts of Inventory Tally Configuration, Single & Multiple User, Tally Screen Components, Mouse / Keyboard Conventions & Key, Combinations, Switching between screen areas, Quitting Tally. Maintaining Company Data, Basic Company Details, Create/Alter/Select/Load/Close a Company, Chart of Accounts, Company Features, Configuration. Creating Group Company, Use of Tally vault, Using Security control & defining different security levels, Use of Tally Audit. Back-up & Restore, Splitting company data, Export & import of Data.

Reference Books -

1. Networking & Data Communication - Nitin K. Naik, Both Hindi/English
2. Data Communication & Computer N/W - Sanjay Pahuja, English
3. E- Commerce - M. K. Saxena, English
4. E-governance - Shashi Chawla, Hindi
5. Financial Account with Tally- Mukti Jain

# **RANI DURGAVATI UNIVERSITY, JABALPUR**

## **SYLLABUS FOR COMPUTER APPLICATION (OPTIONAL GROUP)**

### **B.Com. Semester - VI**

(From Session 2012-13 & onwards)

<b>S.No.</b>	<b>Subject</b>	<b>Max. Marks</b>
1	Visual Basic	50
2	Major Computer Project + Practical	25+10=35
3	CCE	15
	<b>Total Marks</b>	<b>100</b>

# **RANI DURGAVATI UNIVERSITY, JABALPUR**

## **B.Com Computer application (Optional Group)**

Semester - VI

Paper - II

**VISUAL BASIC**

Max marks – 50

Major Computer Project 25 practical – 10 CCE –15

### **UNIT - I**

Introduction to Programming -Modular Programming, Object Oriented Programming, Event Driven Programming: About Visual Basic (Object Based Programming Language), Rapid Application Development using Visual Basic, Getting Familiar with Visual Basic User Interface- Pull-Down menus, Toolbar, Toolbox, Project Explorer, Properties Window, Form Layout Window, Form Immediate window; Opening and Closing window, Resizing and moving windows, Quitting Visual Basic.

### **UNIT - II**

Visual Basic Tool Box (Standard Window Controls)- Pointer, Picture Box, Label, Text Box, Frame, Command Button, Check Box, Option Button, Combo Box, List Box, Horizontal Scrollbar, Vertical Scrollbar, Timer, Shape, Line, Image Box. msgbox and input box.

### **UNIT - III**

Data Types: Integer, Long, Single, Double, Currency, String, Byte, Boolean, Date, Object, Variant Variables: Need to use variable, Declaring Variables, Variable Naming Convention, Assigning value to Variables, Data Types of variable, Scope and lifetime of Variables (Public and Private); Control Flow statements,(Decision and looping),msgbox and input box.

### **UNIT - IV**

Menu Editor : Concept of menus, Shortcut menus and Popup menus Designing Menu System, Menu Editor Dialog Box Options ,drop-down menu and popup menu, Multiple Document Interface, Creating and MDI form, Setting up MDI child Form, Creating Procedures, passing parameters, other built-in functions.

### **UNIT - V**

General Controls (Advance):Common Dialog control(color, font, open, save and save as), data base using vb6.0,Data control and data bound control ,data bound grid control, using ADO data control, data grid control, error handling.

Reference Books -

1. Simplified approach to Visual Basic – prateek bahatia, ranjit singh etc.
2. Mastering VB

# **RANI DURGAVATI UNIVERSITY, JABALPUR**

## **B.Com Computer application (Optional Group)**

Semester - VI

### **Practical**

1. Write a program for basic arithmetic operation (+,-,\*,/) by using textbox, label and command button.
2. Write a program to explain the use of checkbox.
3. Write a program to explain the use of radio button.
4. Write a program to find that the entered integer is even or odd?
5. Write a program to find that the entered integer is prime number or not.
6. Write a program to find that the entered integer is Armstrong, palindrome or not.
7. Write a program to calculate factorial of given integer number.
8. Write a program to display Fibonacci series up to given number of terms.
9. Write a program to use common dialog boxes (Such as open, color, save, save as).
10. Write a program to add, delete and move element within list box.
11. Write a program to illustrate a combo box.
12. Write a program to illustrate a menu editor.
13. Write a program to demonstrate a menu editor.
14. Write a program to demonstrate use of data grid control.
15. Write a program to demonstrate use of data bound control.
16. Write a program to illustrate ADO control