

GOVT. BILASA GIRLS' P.G. (Auto.) COLLEGE

Link Road, Bilaspur (C.G.)

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SYLLABUS

B.C.A.
Semester - V & VI

2021-22



Rules and Regulations for the Semester System at the Graduation Level

1. These subjects are compulsory for all students:-
 - (a) Environmental Studies (I Semester)
 - (b) English Language (II and III Semester)
 - (c) Hindi Language (IV and V Semester)
 - (d) Skill Based Course (VI Semester)
2. In each semester there will be only one theory paper in each elective Subject.
3. For Honours Degree Course, there will be one additional theory paper in each semester i.e. semesters, III to VI.
For Honours Degree Course, separate practical classes will be held round the year but the examinations shall be held only in even semesters i.e. semesters II, IV and VI.
4. **Marks Pattern:-**
 - (i) For non practical subjects, each theory paper will be of 100 marks i.e. 80 External + 20 Internal.
 - (ii) For practical subjects, each theory paper will be of 75 marks i.e. 60 External + 15 Internal.
 - (iii) Practical examination will be of 50 marks. Practical Classes will be held round the year but examination shall be held only in even semesters i.e. semesters II, IV and VI.
5. **Theory Examination:-**
Duration for theory examination shall be of two and half hours.
6. **Practical Examination:-**
Duration for Practical examination shall be as suggested in the syllabi.
7. **Admission Period:-**
 - (i) Admissions in the First Semester shall be completed before 15th of July every year.
 - (ii) Admissions in Semesters i.e. II, III, IV, V and VI shall be completed within 7 days after the completion of examinations on the provisional basis.
 - (iii) The provisional admission shall be regularized within 7 days from the date of declaration of result.
 - (iv) Request for permission for late admission shall not be entertained.
8. **Schedule of Classes-**
 - (i) I Semester's classes will be commenced from 16th of July every year
 - (ii) III and V Semester's classes will be commenced from 2nd July every year.
 - (iii) II, IV and VI Semester's classes will be commenced from 2nd January every year.
 - (iv) All the classes shall be continued till seven days prior to the commencement of the examination.
9. **Examination Schedule- Tentative Schedules of examinations are as under-**
 - (i) Odd semester (I, III & V) - 20th November to 20th December.
 - (ii) Even semester (II, IV & VI) - 15th April to 14th May.
10. **Examination Pattern -**
 - (a) Questions will be asked Unit wise and Section wise. Questions will be set from all Units Covering the entire syllabi.
 - (b) For non practical subjects, maximum marks will be 80 (External).
 - (c) For the practical based subjects, maximum marks will be 60 (External).
 - (d) In each theory paper there will be three sections and the marks distributed for different sections will be in the following pattern -

Theory (Non- Practical):- There will be three sections A, B and C in the question paper.
Section - A Objective Type/ In few words (30 words)

There will be 15 questions to be set, three from each unit and 10 to be attempted. Each question will carry 2 marks.

Section - B Short Answer Type (60 words)

There will be 5 questions to be set, 1 from each unit and all five questions to be attempted. Each question will carry 6 marks.

Section - C Long Answer / Eassy Type Question

There will be 5 questions to be set, 1 from each unit and 2 to be attempted. Each question will carry 15 marks.

Marks Scheme for - Non-practical subject -

Types of Questions	Question to be set from each Unit	Total No. of Questions	Questions to be solved	Marks assigned	Total Marks
Objective / In few words	03	15	10	02	20
Short Answer Type Questions	01	05	05	06	30
Long / Essay type of questions	01	05	02	15	30
Total - 80					

(i) **Theory (Practical Subject):-** There will be three sections A, B and C in the question paper.

Section - A Objective Type/ In few words (30 words)

There will be 15 questions to be set, three from each unit and 10 to be attempted. Each question will carry 2 marks.

Section - B Short Answer Type (60 words)

There will be 5 questions to be set, 1 from each unit and all five questions to be attempted. Each question will carry 4 marks.

Section - C Long Answer / Eassy Type Question

There will be 5 questions to be set, 1 from each unit and 2 to be attempted. Each question will carry 10 marks.

Marks Scheme for - Practical Subject -

Types of Questions	Question to be set from each Unit	Total No. of Questions	Questions to be solved	Marks assigned	Total Marks
Objective / In few words	03	15	10	02	20
Short Answer Type Questions	01	05	05	04	20
Long / Essay type of questions	01	05	02	10	20
Total - 60					

For question papers of compulsory papers of General group subjects i.e. Environmental Studies, English Language, Hindi Language and Skill Based Course, the pattern of question shall be applicable as suggested by the concerned Board of Studies.

(ii) **Practical**

	Each Practical
Laboratory Note Book / Project	10
Vive voce	10
Lab work / Field work	30
Total - 50	

- (e) In odd semester examination, a candidate shall appear in papers of odd semester(s) only. Similarly in even semester examinations, a candidate shall appear in papers of even semester(s) only. Papers of odd and even semesters shall not be confined in one examination.
- (f) Minimum passing marks for external/ semester end theory and practical shall be 34%.

- (g) There shall be provision of 3 grace marks and it would be distributed in maximum two theory Papers / Practical.

Internal Assessment

- Internal Tests are compulsory for theory papers and must be held as per following calendar:-
 Odd Semesters 1st Test - August, 2nd Test - October and 01 Assignment (during semester)
 Even Semesters 1st Test - February, 2nd Test - March and 01 Assignment (during semester)
- Each test & Assignment will be of 20 marks for the subjects without practical & 15 marks for the subjects having practicals. Average of the marks obtained in the best of two tests & assignment shall be incorporated as the final marks. Qualifying marks is 40%.
- If a candidate failed to attend the test on bonafide grounds, one special test may be arranged on the production of relevant documents, before submission of application forms and fees to the office.
- The Unit tests/Assignment marks to be sent to the examination cell of the college as per notification to be issued by the Principal/ Controller Examination from time to time.
- If a candidate (whose status is Regular / Ex/Supplementary) failed in First Year of the current session (2013-14) of annual system will be appeared in the first semester examination as ex-student with under the rules and regulations of Semester System. Number of Internal Test of passed year (2013-14) will not be incorporated or carried forward.

	Non Practical Subject		Practical Subject	
	External	Internal	External	Internal
MAX MARKS	80	20	60	15
MIN MARKS	28	08	21	06

Eligibility criteria for appearing in the examinations

- A candidate should have 75% of attendance both in theory and practical classes. 65% attendance may be considered only on special circumstances and on certification by the Principal of the college.
- A candidate shall have to qualify in the internal tests securing at least 40% marks.
- A candidate shall be allowed to appear in those papers only in which she has secured qualifying marks in internal test.
- If a candidate after taking admission in 1st semester could not continue the classes or could not obtain eligibility cannot appear in the 1st semester examinations. In such cases the student will not be allowed to continue in second semester and she has to continue the classes and obtain eligibility in 1st semester again in next academic year as ex-student.

11. Lecture Periods /Classes

There shall be a minimum of 50-60 hours Classes for each theory papers in respective course. Minimum of 50-60 hours shall be for each practical paper. This shall be strictly adhered to.

12. Other Guidelines

- There will be no provision for Revaluation, Supplementry or Betterment (Division Improvement).
- A candidate has to clear all the papers within 12 semesters (six years) from the year of first admission in the programme.
- A candidate will choose Honours subject just before the start of third semester from any one of the three elective subjects /group selected by her in the first semester. A candidate can change the Honours subject within 15 days from the date of admission in the third semester.
- The system of credit of ten point scale examination marks in the final mark sheet shall be introduced only after its formal approval by the competent authorities.

- (v) The system of Choice based credit system and Gradation system shall be introduced only after its formal approval by the competent authorities.

For Honours Degree Course (Total Marks: 2800).

13. Admission -

The process of admission in Honours Degree Course will be as follows -

- (i) Student shall select course (Pass Course / Honours Degree Course) at the time of first admission in the college.
- (ii) Admission shall be on merit basis after receiving the application from students.
- (iii) Number of seats for Honours Degree Course will be decided as per the Govt. Rules.

(A) Each theory Paper (Non Practical Subject)

<i>Each Theory Paper</i>		<i>Internal Assessment</i>	
Full Marks	Minimum Passing 34%	Full Marks	Minimum Marks 40%
80	28	20	08

(B) Each theory Paper (Practical Subject)

<i>Each Theory Paper</i>		<i>Internal Assessment</i>	
Full Marks	Minimum Passing 34%	Full Marks	Minimum Marks 40%
60	21	15	06

(C) Each Practical Paper

<i>Minimum Passing Percentage</i>	<i>Full Marks</i>	<i>Minimum Passing Marks</i>
34%	50	17

(D) Grace Marks

Total/Maximum 03 in two theory paper/practical.

Amendments in Promotion Rules for Semester System at the Graduation Level

- (a) A Candidate is eligible to continue the second semester classes immediately after the 1st Semester examinations and can appear in the 2nd semester examinations notwithstanding the number of arrear papers in 1st semester provided she must have appeared in the 1st semester examination.
- (b) A candidate will be promoted to 3rd semester with not more than two papers of 1st semester and she will continue to attend classes of 3rd semester provisionally. She will be allowed to get final admission in the 3rd semester with maximum of four back papers in all 1st semester and 2nd semester.
- (c) A Candidate is eligible to continue the 4th semester classes immediately after 3rd semester examination and can appear in the 4th semester examination with maximum 2 back papers in 1st semester and/or any numbers of back papers in 2nd and 3rd semester.
- (d) A candidate will be promoted in 5th semester with not more than 2 back papers in 3rd semester and not more than 4 back papers in all 3rd and 4th semester provided she has cleared 1st and 2nd semester examination.
- (e) A candidate is eligible to continue the 6th semester immediately after the 5th semester examination and can appear in 6th semester examination with maximum of 2 back papers in 3rd semester and/or any number of back papers in 4th and 5th semester examination.
- (f) If a Candidate of 6th Semester is passed in all the semesters except the 5th Semester with back in only one subject, she is allowed to appear in the back paper of the 5th Semester with the examination of 6th Semester.

- (g) The students at the UG Level can view their valued answer copies and apply for the **Challenged Valuation** within 03 days from the date of the declaration of the result.
- (h) A candidate will be eligible to get Graduation and Graduation Honours degree after passing all the six semester examination. For cleaning all semester papers a candidate will be given a period 6 years (12 semesters) from the year of first admission.

सेमेस्टर स्नातक स्तर प्रमोशन नियम

प्रथम सेमेस्टर में प्रवेश की पात्रता:-

- प्रथम सेमेस्टर में छात्राओं का प्रवेश छ.ग. शासन के प्रवेश नियम के आधार पर किया जावेगा।

द्वितीय सेमेस्टर में प्रवेश की पात्रता:-

- विद्यार्थी को प्रथम सेमेस्टर की परीक्षा के तत्काल बाद कितने भी विषयों में बैक के साथ द्वितीय सेमेस्टर में अध्ययन की पात्रता होगी, बशर्ते वह प्रथम सेमेस्टर की परीक्षा में शामिल हुआ हो।

तृतीय सेमेस्टर में प्रवेश की पात्रता:-

- प्रथम सेमेस्टर में 02 से अधिक विषयों में बैक नहीं होना चाहिए।
- प्रथम एवं द्वितीय सेमेस्टर में सम्मिलित रूप से 04 विषयों से अधिक में बैक न हो।

चतुर्थ सेमेस्टर में प्रवेश की पात्रता:-

- प्रथम सेमेस्टर में 02 से अधिक विषयों में बैक नहीं होना चाहिए।
- द्वितीय एवं तृतीय सेमेस्टर में कितने भी विषयों में बैक हो।

पंचम सेमेस्टर में प्रवेश की पात्रता:-

- प्रथम सेमेस्टर उत्तीर्ण होना चाहिए।
- द्वितीय सेमेस्टर उत्तीर्ण होना चाहिए।
- तृतीय सेमेस्टर में 02 से अधिक विषयों में बैक न हो।
- तृतीय एवं चतुर्थ सेमेस्टर में सम्मिलित रूप से 04 विषयों से अधिक में बैक न हो।

षष्ठम् सेमेस्टर में प्रवेश की पात्रता:-

- प्रथम सेमेस्टर उत्तीर्ण होना चाहिए।
- द्वितीय सेमेस्टर उत्तीर्ण होना चाहिए।
- तृतीय सेमेस्टर में 02 से अधिक विषयों में बैक न हो।
- चतुर्थ एवं पंचम सेमेस्टर में कितने भी विषयों में बैक हो।
- यदि कोई छात्रा सभी सेमेस्टर में उत्तीर्ण है एवं केवल पंचम सेमेस्टर में 01 (एक) विषय में बैक है, ऐसी छात्रा को षष्ठम् सेमेस्टर की परीक्षा के साथ परीक्षा देने का अवसर दिया जावेगा।
- विशेष -
 - ✓ मूल्यांकित उत्तर-पुस्तिकाओं के अवलोकन व Challenged Valuation की प्रक्रिया इस स्नातक स्तर सेमेस्टर परीक्षा अप्रैल-मई से लागू है। छात्राएं परीक्षा परिणाम घोषित होने की तिथि से 3 दिन के भीतर इस हेतु आवेदन प्राचार्य को दे सकती हैं।
 - ✓ विद्यार्थी को स्नातक एवं स्नातक आर्नस की उपाधि तभी प्राप्त होगी जबकि उसने सभी 06 सेमेस्टर की परीक्षाएँ उत्तीर्ण कर ली हों एवं 06 सेमेस्टर की परीक्षाएँ उत्तीर्ण करने हेतु उसे प्रथम प्रवेश की तिथि से लेकर 06 वर्षों की अवधि प्राप्त होगी।
 - ✓ छात्रा जिस सत्र बैक की परीक्षा में सम्मिलित होगी उसी सत्र का पाठ्यक्रम एवं परीक्षा संबंधी नियम लागू होगा।

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B.C.A. - Semester V
Computer Application
[Paper: I – Numerical Analysis]

Max. Marks: 80

Min. Marks: 28

Hours 45; Credit-3

Unit-I : Solution of Polynomial and Transcendental Algebraic Equations

Bisection method, Regula falsi method & Newton Raphson Method, Secant Method, Iteration Method, Solution of Cubic & Biquadratic Equation.

Unit-II : Simultaneous Equations and Matrix

Gauss -Elimination Method, Gauss -Gordon Method and Pivoting. Gauss Seidel Iterative Method, Reduction to lower or upper Triangular forms , Inversion of matrix , method of partitioning , Characteristics equation of matrix , Power methods , Eigen values of matrix , Transformation to diagonal forms.

Unit -III : Interpolation - Single Variable Functions

Newton's Interpolation formula, Newton's Forward and Backward Difference Interpolation Formula, Langranges Interpolation formula, Newton's Divided Difference Interpolation Formula.

Unit -IV : Numerical Differentiation and Integration

Newton - cotes integration formula, Trapezoidal Rule, Simpson's One-Third and Three- Eight Rule, Waddle's Rule.

Unit-V : Numerical Solution of Ordinary Differential and Integral Equation

Numerical Solution of first order Ordinary Differential Equations, one step method, Euler's, Picard's and Taylor's series Methods, Picard's Methods for successive approximations, Runga-Kutta Method.

Text Books:

1. Numerical methods, B.S. Garewal,
2. Introduction to Numerical Methods, S. Shastri, TMH.
3. Numerical methods for Science and Engineering, Jain M.K.

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B.C.A. - Semester V
Computer Application
[Paper: II – Software Engineering and Project Management]

Max. Marks: 80

Min. Marks: 28

Hours 45; Credit-3

Unit-I : Software Engineering and Process models

Software myths, Software engineering- A layered technology, Software Development Life Cycle, Process models waterfall model, Incremental process models, Evolutionary process models, The Unified process; Software Requirements: Functional and non-functional requirements, User requirements, System requirements, Interface specification, software requirements document.

Unit II : Requirements and Design Engineering

Feasibility studies, Requirements elicitation and analysis, Requirements . validation, Requirements management, System models: Context Models, Behavioral models, Data models, Object models, Design concepts, the design model, software architecture, Data design, Architectural styles and patterns, Architectural Design.

Unit-III : Testing Strategies and Product metrics

A strategic approach to software testing, test strategies for conventional software, Black-Box and White-Box testing, Validation testing, System testing, the art of Debugging, Software Quality, Metrics for Analysis Model, Metrics for Design Model, Metrics for source code, Metrics for testing, Metrics for maintenance.

Unit –IV : Plans for testing

Snooping for information, Coping with complexity through teaming, Testing plan focus areas, Testing for recoverability, Planning for troubles, Preparing for the tests: Software Reuse, Developing good test programs , Data corruption, Tools, Test Execution .Testing with a virtual computer, Simulation and Prototypes, Managing the Test Customer's role in testing

Unit-V : Software Project Management

Evolution of Software Economics, Life Cycle Phases and Process artifacts, Model based software architectures. Software process workflows, quality indicators, life-cycle expectations, CCPDS-R Case Study and Future Software Project Management Practices

Text Books:

1. Fundamentals of Software Engineering, Rajib Mall, PHI Learning Pvt. Ltd.
2. Software Engineering, Ian Sommerville, Pearson Education Inc., New Delhi.
3. Software Engineering: A Practitioner's Approach. Roger S. Pressman, Tata McGraw-Hill
4. Software Project Management, Walker Royce, Pearson Education.

Reference Books:

1. Software Engineering, Shari L, Joanne M. Atlee, Pearson Education, Inc. New Delhi.
2. Software Engineering, Pankaj Jalote, Wiley India Pvt. Ltd., New Delhi.
3. Software Engineering, Dines Bjorner, Springer India Pvt. Ltd . New Delhi
4. Managing the Software Process, *Watts S. Humphrey*, Pearson Education.
5. Software Project Management, Bob Hughes & Mike Cotterell, fourth edition, TMH.
6. Applied Software Project Management, Andrew Stellman & Jennifer Greene, O'Reilly.

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B.C.A. - Semester V
Computer Application
[Paper: III – Database Design and RDBMS]

Max. Marks: 80

Min. Marks: 28

Hours 45; Credit-3

Unit-I : Introduction to DBMS

Data & Information, File systems versus Database systems, Data Models, Schemas and Instances, Data Abstraction, Data Independence, Database languages and Interfaces, DBMS Architecture, Data Independence, Database Characteristics: Data modeling using Entity - Relationship (ER) Model: Entity sets, attributes and keys, Relationship types, sets, roles and structural constraints, Weak Entity types. Data Models: Relational, Network, Hierarchical and Object Oriented, Enhanced E-R Modeling.

Unit-II : Relational Model and RDBMS

Relational data model concepts, Codd's 12 rules, Relational model constraints and schemas, Relational Algebra and Relational calculus, Relational database design by ER & EER to Relational Mapping, Overview & Architecture of commercial RDBMSs: Oracle, SQL Server. My SQL etc., Database Language: SQL, SQL Programming Techniques: DDL, DML, DCL query statements, Constraints and Triggers, Views and Indexes, SQL in Server Environment.

Unit -III : Database Design Concepts

Data dependency, Armstrong's Axioms, Functional dependencies and Normalization of Relational Databases, First, Second and Third Normal forms, Boyce-Codd Normal form (BCNF), Relational Database design Algorithms and further dependencies, De-normalization.

Unit-IV : Transaction Processing

ACID Properties of Transactions, Concurrency control, Serializability and Recoverability, Transaction support in SQL, Locking Techniques. Time Stamp ordering, Validation Techniques, Granularity of Data Items, Database recovery techniques - Shadow paging, Log Based Recovery, ARIES recovery algorithm, Database Security: Access control, Statistical Database Security, Deadlock: Detection, Avoidance and Recovery.

Unit -V : Special Purpose Databases

Semi-structured Data Model, OO Data Model, OODBMS, Object-Based Databases, Object Relational Databases: XML and Web Databases, Structure of XML, Temporal Databases, Distributed Databases, Deductive Databases, Mobile Databases, Multimedia Databases, GIS Databases, Spatial Databases.

Text Books:

1. Fundamentals of Database Systems, R Elmasri & S B. Navathe, Pearson Education.
2. Database Systems Concepts, A Silberschatz, H F. Korth & S. Sudarshan, McGraw-Hill.
3. Fundamentals of Database Management Systems, Mark L. Gillenson, Wiley India Pvt.
4. Introduction To Database Systems, C.J.Date, Longman, Pearson Education

Reference Books:

1. Database Systems: A Complete Book, Molina, Ullman, J. Widom, Pearson Education.
2. Database Systems: Design, Implementation, and Management, Peter Rob & Carlos Coronel, CENGAGE Learning India Pvt. Ltd., New Delhi.
3. Database Systems Using Oracle, Nilesh Shah, PHI Learning Pvt. Ltd., New Delhi.
4. Database Management Systems, R Ramakrishnan, J Gehrke, McGraw-Hill Education
5. Database Development and Management, Lee Chao, Auerbach Publications.

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B.C.A. - Semester V
Computer Application
[Paper: IV – Introduction to AI and Expert System]

Max. Marks: 80

Min. Marks: 28

Hours 45; Credit-3

Unit-I : Overview of Artificial Intelligence

Definition & Importance of AI, Intelligent Agents: Agents & Environments, Emergence of Intelligent Agents, PEAS Representation for an Agent, Types of Agents; Knowledge: General Concepts: Introduction, Definition and Importance of Knowledge, Knowledge-Based Systems and Representation of Knowledge, Knowledge Organization, Knowledge Manipulation and Acquisition of Knowledge.

Unit-II : Problem Solving and Search Strategies

Solving Problems by Searching, Examples of Search Problems, Problem Formulation, Uninformed Search Techniques- DFS, BFS, Iterative Deepening, Comparing Different Techniques, Informed search methods - heuristic Functions, Hill Climbing, Simulated Annealing, A*, Searching And-Or Graphs, Constrained Satisfaction Problems: Various CSP problems, map, Coloring, Crypt Arithmetic, Backtracking for CSP, Local Search Adversarial Search: Games, Minimax Algorithm, Alpha Beta pruning.

Unit-III : Knowledge Representation, Reasoning and Structured Knowledge

Syntax and Semantics for Propositional logic, Syntax and Semantics for FOPL, Properties of Wffs, Unification Forward and backward chaining, Conversion to Clausal Form, Inference Structured Knowledge: Graphs, Semantic Net. Associative Networks, Frames, Frame Structures, Conceptual Dependencies and Scripts.

Unit -IV : Learning and Planning

Learning from Observations, General Model of Learning Agents, Inductive learning, learning Decision Trees Introduction to neural networks, Perceptrons, Multilayer feed forward network, Application of ANN, Planning problem, Planning with State Space Search, Partial Order Planning, Hierarchical Planning, Conditional Planning

Unit-V : Expert Systems Architectures

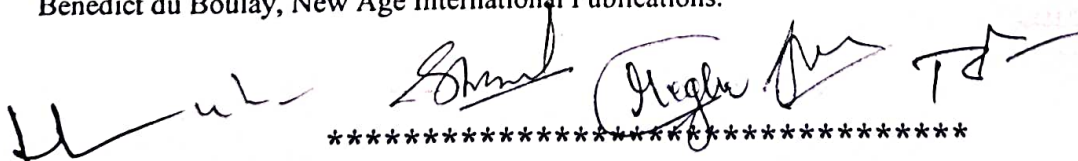
Introduction, Rule Based System Architecture. Non-Production System Architecture, Dealing with uncertainty Knowledge Acquisition and Validation, Knowledge System Building Tools

Text Book:

1. Artificial Intelligence: A Modern Approach, S Russell & P Norvig, Pearson Publication
2. Principles of Artificial Intelligence, Nils J. Nilsson, Narosa Publication.
3. Introduction to Artificial Intelligence and Expert System, Dan W. Patterson. PHI.
4. Artificial Intelligence, Elaine Rich, Kevin Knight, Tata McGraw Hill.

Reference Books:

1. AI-Structures & Strategies for Complex Problem Solving, G Luger. Pearson Educations
2. Artificial Intelligence: an Engineering approach, Robert J Schalkolf, McGraw Hill.
3. Artificial Intelligence, Patrick H Winston, 3rd edition, Pearson Educations
4. Decision Support Systems and Intelligent Systems, Efraim Turban Jay E. Aronson. PHI.
5. Artificial Intelligence-A System Approach, M. Tim Jones, Infinity Science Press
6. Artificial Intelligence - Strategies, Applications, and Models through Search, Christopher Thornton and Benedict du Boulay, New Age International Publications.



5

B.C.A. - Semester VI
Computer Application
[Paper: I - .Net Technology]

Max. Marks: 80

Min. Marks: 28

Hours 45; Credit-3

Unit-I : Programming with C#.net

Getting Started with Net Framework, Exploring Visual Studio NET, Inside a C# Program, Data Types, Statements, Arrays, Using Strings. Objects, Classes and Structs, Properties, Inheritance, Indexers, Delegates, Events. Namespaces, Generics, Collections and Data Structures. Exception Handling. Threading, Using Streams and Files, Reflection, Assemblies, versioning, Windows Forms, Controls, Data binding to Controls, Advanced Database Programming using ADO.net, Using GDI +, Networking, net Remoting, Manipulating XML.

Unit-II : Programming with VB.net

Creating Applications with Visual Basic.NET, Variables, Constants, and Calculations, Making Decisions and Working with Strings, Lists. Loops, Validation, Sub Procedures and Functions Multiple Forms. Standard Modules, and Menus, Arrays, Timers, Form Controls. File Handling, Exception Handling, Working with Databases, Advanced Database Programming using ADO.net. Classes, Generics, Collections, Inheritance, Custom Controls, Crystal Reports

Unit-III : Programming with ASP.net

Building a Web Application, Examples Using Standard Controls, Using HTML Controls, Validating Form Input Controls using Validation Controls, Understanding Applications and Site, Applying Styles, Themes, and Skins, Creating a Layout Using Master Pages, Binding to Databases using Controls, Data Management with ADO.net , Creating a Site Navigation Hierarchy, Navigation Controls , Membership and Role Management, Login Controls, Securing Applications, Caching For Performance, XML, Using Crystal Reports in Web Forms.

Unit-IV : Database and .NET Technology

Data Access with LINQ to SQL : Automatic Properties, Initializers, Understanding type inference/lamda exp/generics/anonymous types, Creating LINQ to SQL Entities, Performing standard database commands with LINQ to SQL, Creating a custom LINQ entity Base Class, Standard Data-access operation, Performing Validation; Navigation Controls: Understanding Site Maps, SiteMapPath Control, Formatting the SiteMapPath Control, Menu Control, Login Control: Automatically Redirecting a user to the Referring Page, Automatically Hiding the Login Control from Authenticated Users, Authenticated Users, Caching Application Pages and Data, Manipulating the Page Output Profiles, Localizing Applications for multiple languages, Forms- Based Authentication with the web.config file- with an xml file-with a database table.

Unit-V : Advanced Applications with .NET Technology

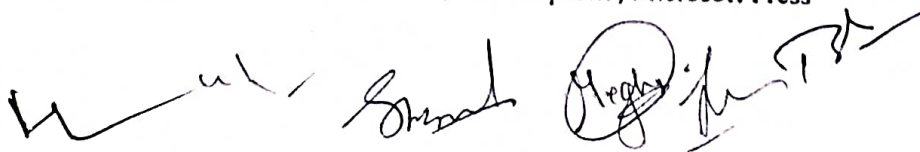
XML Web Services: Setting WebMethod Attribute, Setting WebServices Attribute, Invoking an XML Web Service with HTTP-Get, HTTP-Post & SOAP, XML Web Services Behavior, AJAX(Asynchronous JavaScript and XML): Server Side & Client Side Ajax, Ajax Toolkit, Setting up and implementing Ajax, SQL Server Administration: Setup Database server of a website, Converting data between MDF to DBO, DBO to XLS or in any other format, Backup and Restore of data, FTP Management, Setting up FTP Server (Live), Sending Emails, Designing email panel, How to send an email to various users, Sending auto emails.

Text Books:

1. Professional Visual Studio 2013, Bruce Johnson, Wrox Publication
2. Beginning ASP.NET 4.5.1: in C# and VB, Ivar Spaanjaars, Wrox Publication
3. Professional C# 5.0 and .NET 4, C. Nagel, J Glynn, Morgan Skinner, Wrox Publication
4. Pro ASP.NET 3.5 in C# 2008, Matthew MacDonald and Mario S, Wrox Publication
5. Pro ASP.NET MVC 3 Framework, Adam Freeman; Steven Sanderson, Apress
6. Professional ASP.NET MVC 3, Jon Galloway; Phil H; Brad Wilson; K. Scott Allen, Wrox

Reference Books:

1. Pro ASP.NET 4 in C# 2010, Matthew Mac Donald; Adam Freeman; Mario S, Apress
2. Microsoft® ASP.NET 4 Step by Step, George Shepherd, Microsoft Press
3. Programming Microsoft® ASP.NET 4, Dino Esposito, Microsoft Press



6

B.C.A. - Semester VI
Computer Application
[Paper: II – Data Mining and Warehousing]

Max. Marks: 80

Min. Marks: 28

Hours 45; Credit

Unit-I : Overview and Concepts:

Need for data warehousing, Basic elements of data warehousing, Trends in data warehousing. Planning And Requirements: Project planning and management, Collecting the requirements. Architecture And Infrastructure: Architectural components, Infrastructure and metadata.

Unit-II : Data Design and Data Representation:

Principles of dimensional modeling, Dimensional modeling advanced topics, data extraction, transformation and loading, data quality.

Unit-III : Information Access and Delivery:

Matching information to classes of users, OLAP in data warehouse, Data warehousing and the web. Implementation and Maintenance: Physical design process, data warehouse deployment, growth and maintenance.

Unit-IV : Data Mining Introduction:

Basics of data mining, related concepts, Data mining techniques Data Mining Algorithms: Classification, Clustering, Association rules. Knowledge Discovery: KDD Process.

Unit -V : Web Mining:

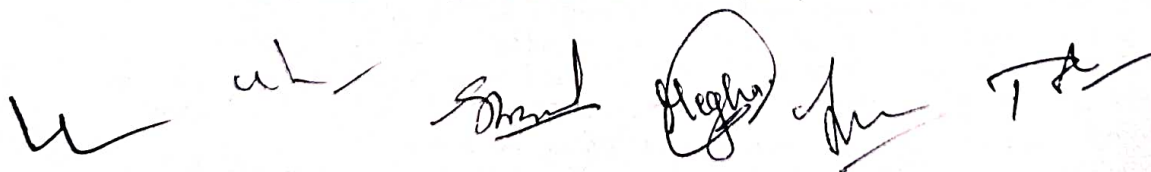
Content Mining, Web Structure Mining, Web Usage mining. Advanced Topics: Spatial mining, Temporal mining. Visualization: Data generalization and summarization-based characterization, Analytical characterization: analysis of attribute relevance, Mining class comparisons: Discriminating between different classes, Mining descriptive statistical measures in large databases Data Mining Primitives, Languages, and System Architectures: Data mining primitives, Query language, Designing GUI based on a data mining query language, Architectures of data mining systems Application and Trends in Data Mining: Applications, Systems products and research prototypes. Additional themes in data mining, Trends in data mining

Text Books:

- 1 Data Mining-Concepts & Techniques, J. Han & M Kamber, Morgan Kaufmann Pub
- 2 Introduction to Data Mining. P N Tan, M. Steinbach & Vipin Kumar, Pearson education
- 3 Data Mining Techniques - Arun K Pujari, 2nd edition, Universities Press
- 4 Data Warehousing in the Real World - Sam Aanhory & Dennis Murray Pearson Edn

Reference Books:

- 1 Insight into Data Mining. K P. Soman, S. Diwakar. V. Ajay, PHI, 2008
- 2 Data Warehousing Fundamentals - Paulraj Ponnaiah Wiley student Edition
- 3 Data Mining Introductory and Advanced Topics, Margaret H. Dunham, Pearson Education 2004
- 4 Principles of Data Mining, David Hand, Heikki Manila, Padhraic Symth, PHI 2004
- 5 Building the Data Warehouse. W.H. Inmon, Wiley, 2003.
- 6 Data Warehousing, Data Mining & OLAP, Alex Bezon, Stephen J Smith, McGraw-Hill.



7

B.C.A. – Semester VI
Computer Application
[Paper: III – Current Trends and Technology in Computer Science]

Max. Marks: 80

Min. Marks: 28

Hours 45; Credit-3

Unit-I : Fundamentals of advanced computing

System models for advanced computing -clusters of cooperative computing, grid computing and cloud computing; software systems for advanced computing-service oriented software and parallel and distributed programming models with introductory details, Features of grid and clpttoplatform.

Unit-II : Grid Computing

Grid Architecture and Service modeling, Grid resource management, Grid Application trends, Characterization of Grids, Organizations and their Roles, Grid Computing Road Maps, Review of Web Services-OGSA-WSRF.

Unit-III : Grid Monitoring

Grid Monitoring: Grid Monitoring Architecture (GMA) - An Overview of Grid Monitoring Systems- GridICE - JAMM -MDS-Network Weather Service-R-GMA-Other Monitoring Systems- Ganglia and GridM.

Unit-IV : Cluster Computing

Introduction: Overview of Cluster Computing, The Role of Clusters, Definition and Taxonomy Of Parallel Computing, Hardware System Structure, Node Software, Resource Management, Distributed Programming, Limitations, Cluster Planning, Architecture , Node Hardware and Node Software, Design Decisions.

Unit-V : Cloud Computing

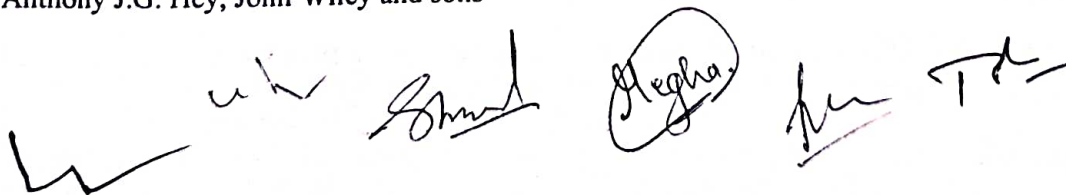
Cloud Computing services models and features in Saas, Paas and laas; Service oriented architecture and web services; Features of cloud computing architectures and simple case studies, Virtualization- Characteristic features, Taxonomy Hypervisor, Virtualization and Cloud Computing, Pros and Cons of Cloud Computing, Technology Examples/Case Studies.

Text Books:

1. Distributed and Cloud Computing, Kaittwang Geoffrey C.Fox and Jack J Dongrra, Elsevier India 2012.
2. Mastering Cloud Computing- Raj Kumar Buyya, Christian Vecchiola and S Tanurai Selvi, TMH, 2012.
3. Beowulf Cluster Computing with Linux, William Gropp, Ewing Lusk, Thomas Sterling, MIT Press, 2003
4. Grid Computing, Joshy Joseph and Craig Fellenstein, Pearson Education 2004. 5. The Grid Core Technologies, Maozhen Li, Mark Baker, John Wiley and Sons , 2005.

Reference Books:

1. Cloud Computing, John W. Ritting House and James F Ramsome, CRC Press, 2012Enterprise Cloud Computing, Gautam Shroff, Cambridge University Press, 2012.
2. In Search of Clusters: The ongoing battle in Lowly Parallel Computing, Gregory F P Fister, Second Edition, Prentice Hall Publishing Company, 1998.
3. The Grid 2 - Blueprint for a New Computing Infrastructure, Ian Foster and Carl Kesselman, Morgan Kaufman - 2004.
4. Grid Computing: Making the Global Infrastructure a reality, Fran Berman, Geoffrey Fox, Anthony J.G. Hey, John Wiley and sons



B.C.A. - Semester VI
Computer Application
[Project: Major Project]

8

Max. Marks: 100

Min. Marks: 34

It is compulsory, that students would have group of maximum of two students and project should be done under Government Sectors/ Public Sector / Pvt. Limited SAA/ Company/ Software Technology Park of India/ ISO 9001 certified company only.

The students should not make any project under local or private institutions.
The students should make project themselves and project will not be copy of other project.

Steps for Live Project

1. Getting customer's requirements
2. Designs, database and business logics
3. Developing software application project
4. Testing and implementing the project
5. Troubleshooting the project application after Implementation

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NETWORK SECURITY AND CYBER TECHNOLOGY**Unit-I
Fundamentals of Network Security**

Security Attacks (Interruption, Interception, Modification and Fabrication), Security Services (Confidentiality, Authentication, Integrity, Non-repudiation, access Control and Availability) and Mechanisms A model for Internetwork security, Internet Standards and RFCs.

**Unit-II
Conventional AND Encryption Principles**

Conventional encryption algorithms, cipher block modes of operation, location of encryption dev ces key distribution Approaches of Message Authentication, Hash Functions and HMAC.

**Unit -III
Public key cryptography principles**
Public key cryptography algorithms, digital signatures, digital Certificates, Certificate Authority and key management Kerberos, X.509 Directory Authentication Service, Email privacy: Pretty Good Privacy (PGP) and S/MIME.

**Unit-IV
IP Security Overview**

IP Security Architecture, Authentication Header, Encapsulating Security Payload, Combining Security Associations and Key Management, Web Security Requirements, Secure Socket Layer (SSL) and Transport Layer Security (TLS), Secure Electronic Transaction (SET).

**Unit-V
Cyber Laws in India**

Information Technology Act, 2000 - a brief overview; Documents or transactions to which IT Act shall not be applicable; meaning of Computer, Computer system and Computer network; E - commerce; E - governance; Concept of Electronic Signature; Concept of Cyber contraventions and Cyber Offences, E- Contract - legal provisions regulating the e - contract with special reference to the provisions of IT Act, 2000.

Text Books:

1. Network Security Essentials (Applications and Standards), William Stallings Pearson Education.
2. Hack Proofing your network, Ryan Russell, Dan Kaminsky, Rain Forest Puppy, Joe Grand, David Ahmad, Hal Flynn Ido Dubrawsky, Steve W.Manzuik and Ryan Permeh, Wiley Dreamtech
3. Internet Law-Text and Materials, Chris Reed, Universal Law Publishing Co., New Delhi
4. Hand book of Cyber Laws, Vakul Sharma, Macmillan India Ltd, New Delhi

Reference Books:

1. Network Security and Cryptography: Bernard Menezes, CENGAGE Learning.
2. Network Security - Private Communication in a Public World, Charlie Kaufman, Radia Perlman and Mike Speciner, Pearson/PHI.
3. Cryptography and network Security, Third edition, Stallings, PHI/Pearson
4. Principles of Information Security, Whitman, Cengage Learning.
5. IT and Indian Legal System, Kamiesh N. & Murali D.Tiwari(Ed), Macmillan India Ltd, New Delhi
6. The Internet: A User's Guide (2003), K.L.James, Prentice Hall of India, New Delhi
7. Computer Contract & IT Laws (in 2 Volumes), S.V.Joga Rao, 2005 Prolific Law Publications, New Delhi

SEMESTER VI

COMPUTER FUNDAMENTALS AND PC PACKAGE

UNIT-I

Basic of Computer Device

What is computer?, Components of computer system:-input devices ,output devices and c
.Generation of computer, Types of computer, Characteristics and limitation of computer..

Computer memory

Primary Memory:-RAM and ROM, Secondary Storage:-Hard Disk Drive, CD,DVD,BRD,Op
Disk,Magnetic Tape, Magnetic disks.

Input /Output Devices

Keyboard ,mouse ,monitor ,trackball ,joystick, scanner(MICR,OCR,OMR,Bar code
reader),printer and types of printer,plotter,light pen,touch screen.

UNIT-II

Basic of Computer Software

Introduction to software ,types of software:-System software and application software,

Operating System, utilities software,word processing software,spreadsheet

software,presentation software,database software.Virus and types of virus, malicious softwa

UNIT-III

Introduction to MS Word

Documents and document Types,Menus,shortcuts, Working with Documents:Opening-new
existing file,Save file.

Working with text documents-Inserting, Deleting,cut,copy,paste,undo redo,

UNIT-IV

Introduction to MS Excel

Working with Spreadsheet and its Application, Working with spreadsheet-openings, saving f

Introduction to MS Powerpoint

Application of Power point presentation, Creating new presentation, different presentation
templates, setting backgrounds, Formatting a presentation-Adding style, Color, gradient fills,

Adding header and footer,slide background,slide layout,Inserting pictures, movies, tables
etc.Setting animation and transaction effect.

UNIT-V

Introduction to Web Component

Introduction of internet, Network, Types of Network, HTTP, Www, URL, HTML, Web Browser

FTP

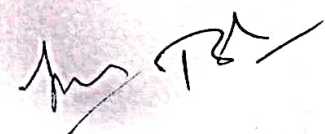
Proxy Server ,e-mail.











11

Skill Development के अंतर्गत
वैकल्पिक पाठ्यक्रम सत्र 2021-22
ट्रांसलेशन प्रोफिसियेंसी (अनुवाद सामर्थ्य)
बी.ए./बी.एस-सी./बी.कॉम./बी.एच.एस-सी.

अंक योजना पूर्णांक : 100

मुख्य परीक्षा : 80

आंतरिक मूल्यांकन : 20

उद्देश्य -

आधुनिक युग में अनुवाद सामर्थ्य का महत्व अभिव्यक्ति-कौशल के साथ अंग्रेजी, हिंदी और आंचलिक भाषा छत्तीसगढ़ी में सक्षम होकर व्यक्तित्व विकास करना है। केन्द्र सरकार, राज्य शासन के समानांतर अर्द्धशासकीय और निजी संस्थानों में आजीविका की दृष्टि से इस पाठ्यक्रम का महत्व अधिक है। हिंदी भाषा में पारंगत होने के साथ इस पाठ्यक्रम से अंग्रेजी और छत्तीसगढ़ी में दक्षता होने से छात्रों का सम्यक विकास संभावित है जिससे उनमें इस पाठ्यक्रम के द्वारा रोजगार के अवसर उपलब्ध हो सकेंगे।

अनुवाद, राजभाषा सहायक, हिंदी अधिकारी, ट्यूटर विक्रेता प्रतिनिधि, दूरदर्शन और आकाशवाणी के उद्घोषक व समाचार पत्रों के संवाददाता।

पाठ्यक्रम -

इकाई - 1	अनुवाद - परिभाषा, लक्षण, स्वरूप
इकाई - 2	अच्छे अनुवाद के गुण
इकाई - 3	स्वर-व्यंजन वाक्य शुद्धि
इकाई - 4	कार्यालयीन हिंदी और अनुवाद
इकाई - 5	अनुवाद - अंग्रेजी से हिंदी

प्रायोगिक (व्यावहारिक) परियोजना कार्य

20

अंक

1. स्थानीय अथवा बाहरी सरकारी, अर्द्धसरकारी संस्थानों में परिभ्रमण के आधार पर दिए गए किसी भी विषय पर परियोजना रिपोर्ट तैयार करना।
2. सामूहिक चर्चा।
3. उच्चारण-अभ्यास।

संदर्भ ग्रंथ -

1. अनुवाद विज्ञान - सिद्धांत और प्रयोग, डॉ. जयश्री शुक्ल, वैभव प्रकाशन, रायपुर।
2. अनुवाद समझें एवं करें, डॉ. विचार दास सुमन, वाणी प्रकाशन, नई दिल्ली।
3. व्यावहारिक हिंदी व्याकरण तथा रचना, डॉ. हरदेव बाहरी, वाणी प्रकाशन नई दिल्ली।

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अंक-विभाजन

खण्ड	प्रश्न का प्रकार	विवरण	शब्द सीमा	चयन प्रश्न संख्या	प्रत्येक में अंक	कुल अंक
प्रथम	अतिलघुउत्तरीय/ वस्तुनिष्ठ प्रश्न	प्रत्येक इकाई से प्रश्न चुने जाने हैं।	-	06	02	12
द्वितीय	लघुउत्तरीय प्रश्न	प्रत्येक इकाई से कम से कम 07 प्रश्न पूछे जाएंगे, (व्याख्या करना भी है) जिसमें से कोई 04 प्रश्न चयन किए जायेंगे।	60	04	05	20
तृतीय	दीर्घउत्तरीय प्रश्न	प्रत्येक इकाई से, कम से कम 07 प्रश्न पूछे जायेंगे, जिसमें से कोई 04 प्रश्न चयन किए जायेंगे।	नहीं	04	12	48
अंक जोड़						80
आंतरिक मूल्यांकन						20
कुल अंक						100

Ashida

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P L P L

GOVT. BILASA GIRLS' P.G. (AUTO.) COLLEGE
 BILASPUR (C.G)
 SYLLABUS 2021-2022
 CLASS: B.A./B.SC/B.COM/B.SC.(H.Sc.)/BCA/BBA

Max. M - 60

Min. M - 21

SEMESTER- VI
 BASICS OF WRITING SKILL

Note:

- All questions are compulsory
- Questions are to be set from each unit
- There will be internal choice in each unit. Marks are indicated against the units.

UNIT-I Parts of Speech I

- | | |
|------------|----|
| a) Noun | 05 |
| b) Pronoun | 05 |

UNIT-II Parts of Speech II

- | | |
|---------------|----|
| a) Verbs | 05 |
| b) Adverbs | 05 |
| c) Adjectives | 05 |

UNIT-III Sentence Writing I [Interchange of Sentences]

- | | |
|--|----|
| a) Affirmative to Negative Sentences | 05 |
| b) Interrogative and Assertive Sentences | 05 |
| c) Exclamatory and Assertive Sentences | 05 |

UNIT-IV Sentence Writing II [Conversion of Sentences]

- | | |
|--|----|
| a) Simple Sentences to Compound Sentences & Compound to Simple Sentences | 05 |
| b) Simple Sentences into Complex & Complex to Simple Sentences | 05 |

UNIT-V (a) Notice Writing

- | | |
|-------------------------|----|
| (a) Notice Writing | 05 |
| (b) Arranging Sentences | 05 |

Recommended Books:

- Synergy by Orient Blackswan.
- Advanced English Grammar by Martin Hewings.
- English Grammar and Composition by Wren and Martin.
- Total English by Beeta Publications.

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Skill Development course
Semester VI
BAKERY

MARKS-60

UNIT-I

Introduction and scope of bakery, various kind of baking, products, structure of wheat grain.

Flours- types of flours available, composition, gluten, baking process.

UNIT-II

Raw materials required for bread making: role of flours, water, yeast, salt, sugar, milk and fat and other ingredient- egg, fruit, dried fruits, nuts, chocolates.

Leavening agents- fermentative and non fermentative, natural and chemicals- air steam, yeast.

UNIT-III

Bread making process, methods of bread making- straight dough method, delayed salt method, no time dough method, sponge and dough methods, characteristics of good bread, bread faults and their remedies.

UNIT-IV

Cakes- types of cakes, cake making process, cake making methods- Genoise methods, blending method, rubbing method, creaming method, sponge method, characteristics of good cakes, cake faults and remedies, importance of temperature for baking, icing & types of icing.

UNIT-V

Pasty making, biscuit, types of biscuit, cookies, characteristics of good cookies, cookies making methods- one stag methods, creaming method, sponge methods, types of cookies.

Importance of hygiene in bakery.

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Pr *Sh* *Suman*

Skill Development course
Semester VI
BAKERY

15

PRACTICALS

Marks-25

1. Weighing
2. Bread, toasts, Rusks and pizzas base.
3. Cake making- Sponge cake, Rock cake, fruit cake, fatless cake, Black forest cake, butter cake, Genoise cake, Birthday cake, Chocolate dipping cake, Wedding cake, Cheese cake.
4. Muffins and pastries
5. Biscuits- Salted Biscuits, Sweet, Ginger, Nankhatai, Nut biscuit, Chocolate and Cheese biscuits
6. Patties- Veg Patties, Cheese Patties
7. Types of Icing
8. Buns-Hot cross buns, fruit buns.

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SEMESTER VI

COMPUTER FUNDAMENTALS AND PC PACKAGE

UNIT-I

Basic of Computer Device

What is computer?, Components of computer system:-input devices ,output devices and CPU .Generation of computer, Types of computer, Characteristics and limitation of computer..

Computer memory

Primary Memory:-RAM and ROM, Secondary Storage:-Hard Disk Drive, CD,DVD,BRD,Optical Disk,Magnetic Tape, Magnetic disks.

Input /Output Devices

Keyboard ,mouse ,monitor ,trackball ,joystick, scanner(MICR,OCR,OMR,Bar code reader),printer and types of printer,plotter,light pen,touch screen.

UNIT-II

Basic of Computer Software

Introduction to software ,types of software:-System software and application software, Operating System, utilities software,word processing software,spreadsheet software,presentation software,database software.Virus and types of virus, malicious software.

UNIT-III

Introduction to MS Word

Documents and document Types,Menus,shortcuts, Working with Documents:Opening-new and existing file,Save file.

Working with text documents-Inserting, Deleting,cut,copy,paste,undo redo,

UNIT-IV

Introduction to MS Excel

Working with Spreadsheet and its Application, Working with spreadsheet-openings, saving file

Introduction to MS Powerpoint

Application of Power point presentation, Creating new presentation, different presentation templates, setting backgrounds, Formatting a presentation-Adding style, Color, gradient fills, Adding header and footer,slide background,slide layout,Inserting pictures, movies, tables etc.Setting animation and transaction effect.

UNIT-V

Introduction to Web Component

Introduction of internet, Network, Types of Network, HTTP, Www, URL, HTML, Web Browser, FTP

Proxy Server ,e-mail.

uL *Shiv* *Prakash* *Pr* *TR*

SKILLD BASED COURSE

B.COM/B.Sc/B.A/B.Sc. Home Sc./BCA VI SEM

17

MM- 60

Paper I

E-COMMERCE AND TALLY

OBJECTIVE

This course is meant to acquaint the students with the principles of Business Economics as are applicable in business.

UNIT-I

Meaning and concept of Internet and E-Commerce: A brief history of the internet, Meaning and concepts, No Middleman, Networking, Accessibility, Timesaving, Player Synergy, High Transitional costs, Meaning of E-commerce, Cost of E-Commerce, Media Convergence. E-commerce and related services, techniques of E-Commerce System, Types of E-Commerce, Applications of E-Commerce, Advantages and Disadvantages of E-Commerce.

UNIT-II

Channel of E-Commerce and Electronic Trading System : E-commerce and e-business, E-Market Basics, Different Types of E-marketplaces, Advantages of E-marketplaces, Benefits as a seller, Benefits as a buyer, E-Business Issues, E-marketplace Development, The Difference Between E-business, E-commerce, and E-marketplaces, Channels of E-commerce, The Web as an Advertising Channel, The Web as an Ordering Channel, Web as a customer Support Channel, Need for E-Commerce, Improved Productivity, Cost saving, Streamlined Business Process, Better Consumer Service, Opportunities for new Business, E-commerce as an electronic trading system, The Role of a Specialist, The Role of a Market Maker, Electronic communication Network

ECNs).

UNIT-III

E-Payment, E-Payment Risk and Component: Customer communication, Special features required in Payment system, Banking and security markets, E-Payment systems, Checks and bank Transfers, EDI, Credit card Payment System, E-Cash and ATMs, Banks and the Internet, Development of Payment systems, digitized "e-cash" system, Credit card based systems, Business Issues and Economic Implications, A Classification of Credit Cards Based Payment. Benefits of using e-payment, Improvement in sales, increased Profits, Reduced Expenses, The Customer Perspective, Risks in E-Commerce, Risk management options, An Industry value chain.

Security Risk, Threats, Tool and Policy: Security risk of e-commerce, Public and Private keys, One-way functions, Types of Threats Associated with Information Technology,

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Sources of security threats Security Tool and risk Management approach ,E-Commerce and security policy for e-commerce, Corporate Digital Library.

UNIT-IV

Introduction of Accounting Software- TALLY: Introduction, Creation of Company, Group and Ledger Creation, Display of Voucher, Creating Voucher, voucher Entry, Financial Statement, Display of Balance Sheet and P&L A/c, Other Report.

UNIT-V

Inventory Control : Introduction of Inventory, Creating Unit of measure, Stock Group, Godown, Category, and Stock Item, Creating Inventory Vouchers, Sale Order and Purchase Order, Preparing Debit and Credit Notes, Methods of Depreciation, Depreciation of Assets, Advance entries and Report.

PRACTICAL EXAMINATION & VIVA - VOCE

MM - 25

(Based on Syllabus Mentioned Above)

References;

Henry Chan, Raymond Lee, Tharam Dillon : E-Commerce Fundamental & Applications.

Wiley Publishers.

Subrata Bhaumick

: A Guide Book on E-Commerce.

Notion Press.

Gaurav Agarwal

: Learn Tally Prime With GST Book.

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A collection of handwritten signatures and initials at the bottom of the page, including a large signature on the left, a signature with an arrow pointing to it, and several other initials and signatures on the right, including one that appears to be "Pradeep".

19
Presenting with power point : Creating Presentation, working with slides, Different type of slides, setting page layout, selecting background & applying design, adding Graphics to slide, adding sound & movie, Working with Tables, creating chart & Graph, adding special effect, slide Transition, advancing slides, animating slide, presenting slide show.

UNIT-V

Ms-Excel : Introduction of Ms-Excel, use of Excel Sheet, Saving ,opening, & printing workbook, Formatting Cell & text, Divide worksheet into pages, working with Formulas, setting page layout, adding Header & Footer, excel functions, using multiple documents, protecting your work, password protection, Chart & Graphs, Maps, Templates, using worksheet as database, using Graphics, sorting a database, Filtering a database, using auto filter.

MM - 25

PRACTICAL EXAMINATION & VIVA - VOCE

(Typing Skill in both Hindi and English in Computer

Ms-Office)

Shirish

R

2012

Pradeep

SKILLD BASED COURSE

B.COM/B.Sc/B.A/B.Sc. Home Sc./BCA VI SEM

Paper I

MM- 60

Professional proficiency in computer

OBJECTIVE

This course is meant to acquaint the students with the principles of Business Economics as are applicable in business.

COURSE INPUT

UNIT-I

Introduction of Computer: What is Computer and Computer System, Characteristics and Capabilities and Limitations; Classification of Computer: Analog, Digital, Hybrid, General and Special purpose computer, Micro, Mini , workstations, and Embedded Computer ,Generation of Computer, Number System, Basic Concept of Operating System.

UNIT-II

Computer Software And Hardware: Introduction of Software and Hardware, type of Software and Hardware, System software Vs. Application software, Types of System and Application Software, Difference between Program and Package, Input, output and Storage Devices.

UNIT-III

Personal Computer And Operating System : Introduction of PC and Its Components and uses, Fundamentals of MS-DOS , Physical Structure of the Disk, Compatibility of drives, Disk and DOS Versions, Internal DOS Commands- DATE, TIME,DIR,MD,CD,COPY,DEL,REN,VOL,CLS,PATH,TYPE, External DOS Commands-CHKDSK, XCOPY, PRINT, DISKCOPY, DISKCOMP,DOSKEY, HELP, TREE, SYS, LABEL, ATTRIB.

UNIT-IV

Ms Word :

Introduction of Ms-Word, Entering Text in Word, Creating & editing word documents, Formatting documents, aligning documents, indenting paragraphs, changing margin, formatting pages, Working with Tables, inserting and deleting cells, rows & columns, use bullets and numbering, Checking spelling & Grammar, Working with long documents, working with header & footer, adding page no. & footnote, working with graphics, inserting ClipArt, Working with templates, working with Mail-Merge, writing the form letter.

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Group
Final

Group,
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