St. Aloysius' College (Autonomous), Jabalpur

Semester I

Part A – Introduction

Session:	2022-23
Subject/ विषय:	Commerce / कॉमर्स
Programme/ कार्यक्रम:	Certificate / सर्टिफिकेट
Class/ कक्षा:	B. A 1st Semester/ बी. कॉम 1st सेमेस्टर
Course Code/ पाठ्यक्रम कोड:	C1-COMC1T
Course Type/ पाठ्यक्रम का प्रकार:	OPEN ELECTIVE
Course Title/पाठ्यक्रम का शीर्षक:	DATA PROCESSING SOFTWARE – I
Pre-requisite/ पूर्वपिक्षा:	OPEN FOR ALL
Course Learning Outcome/ पाठ्यक्रम अध्ययन की परिलब्धियां:	After completion of this course, it is expected that the student shall be able CO 1- To understand the basic concepts of computer system, memory and data CO2- To understand the concept of office automation CO 2-To understand the basic concepts of various application softwares. CO 3- To study various methods of formatting of documentation. CO4- To apply acquired knowledge in CO5- To develop and enhance the presentation skill using power point.
Credit Value/ क्रेडिट मान:	4 credits
Total Marks/ कुल अंक:	Max. Marks: (internal) + (external)

Part B – Course Content

Unit I	Fundamentals of Computer- Computer- Block diagram, Uses, types, Input Devices: Point and drawn devices, scanning devices, Output Devices: Monitors & its Types. Printers - Impact, Non-Impact, Plotters. Primary Memory:-RAM (Dynamic & Static), ROM (PROM, EPROM, EEPROM), Secondary Memory - Disk, Optical disk, Data representation: Number system: Binary, Decimal, Octal and hexadecimal, Conversions.
Unit II	**BASICS OF MS WORD** : Creating word documents : the word window , applying fonts and font styles in word, Aligning and formatting; finding and replacing texts spelling and grammar using the thesaurus command, getting print using print preview, changing page orientation and paper size, aligning text vertically, setting margins , printing options .Cross reference, Bookmarks, Macro and Hyperlink, Index

	creation. creating headers and footers , creating and modifying page numbers ,working with columns working with newspaper columns , creating tables , modifying table structure, formatting table ; use of mail merge in Microsoft word.
Unit III	**Spreadsheet Processor** Creating Excel Worksheets: Workbook and Worksheets, Entering Text and Numbers, Creating Formulae, Changing Worksheet Layout : Adjusting Column Width and Row Height, Inserting and Deleting Rows and Columns, Naming Worksheet , Selecting Worksheets, Inserting and Deleting Worksheets, Aligning Text , Border and Color. Printing in Excel **Advanced Techniques in Excel:** Functions , Entering Functions , Relative and Absolute Cell References. Create Named Ranges, Creating Charts ; Editing and Formatting Charts ; Adding a Data Series , Deleting a Data Series , Modifying and Formatting Charts. Creation of Pivot Table To analyze worksheet data.
Unit IV	**CREATING POWERPOINT PRESENTATION:** Introduction of MS PowerPoint, Creating a Basic Presentation using templates, themes Building Presentations, Modifying Visual Elements, Formatting and Checking Text, Adding Objects, Applying Transitions, Inserting Audio & video in slide, Animation Effects and Linking, Preparing handouts, custom slide show.

Part C – Suggested Readings

S. No.	Author	Name of the Book	Publication
1.	Wili Train, Gini Courter,Annette Marquis	Microsoft Office 97	B.P.B. Publications
2.	Gini Courter,Annette Marquis.	Microsoft Office 2000	B.P.B. Publications
3.	Saxena Sanjay,S Schnd	Microsoft Office 2000 for everyone	Vikas Publishing
4.	Kari Holloway	Writer's Guide to Microsoft Word	Hearts & Blades Publishing
5.	Michael Alexender, Richard Kusleika	Access 2016 Bible	Wiley
6.	Greg Harvey	Excel 2019	For Dummies
7	Chris Smith	Microsoft PowerPoint made easy	Flame Tree Publishing

Part D: Assessment & Evaluation

Suggested Continuous Evaluation Method

Maximum Marks: 100

Continuous Comprehensive Evaluation (CCE): 40 **Marks**

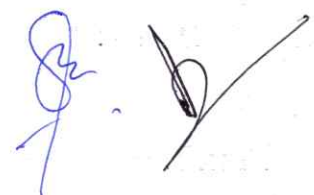External Exam: 60 **Marks**

BA I Sem Practical list

Microsoft Word

1. Design an identity card in MS Word application.
2. Design a marksheet of last passed year examination in Word .
3. Design a greeting card in MS Word application.
4. Create an invitation letter for the birthday party and send it to the multiple recipients through mail merge.

MS Excel

1. Using if logical function make an electricity bill in MS Excel application.
2. Using mathematical and logical function create an employee salary sheet in MS Excel application.
3. Design a marksheet in MS Excel application using IF analysis.
4. Using chart display the cricket data Analysis in MS Excel.

MS PowerPoint

1. Create a presentation in MS PowerPoint on the topic "College Assembly".
2. Create a presentation on the topic my hobby by applying transitions and animation effects.

St. Aloysius' College (Autonomous), Jabalpur
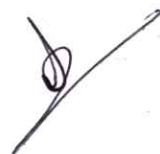
Semester I

Part A – Introduction	
Session:	2022-23
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Programme/ कार्यक्रम:	Certificate / सर्टिफिकेट
Class/ कक्षा:	B. A 1st Semester/ बी. कॉम 1st सेमेस्टर
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Course Type/ पाठ्यक्रम का प्रकार:	Minor
Course Title/पाठ्यक्रम का शीर्षक:	DATA PROCESSING SOFTWARE – I
Pre–requisite/ पूर्वपेक्षा:	OPEN FOR ALL
Course Learning Outcome/ पाठ्यक्रम अध्ययन की परिलब्धियां:	After completion of this course, it is expected that the student shall be able CO 1- To understand the basic concepts of computer system, memory and data CO2- To understand the concept of office automation CO 2-To understand the basic concepts of various application softwares. CO 3- To study various methods of formatting of documentation. CO4- To apply acquired knowledge in CO5- To develop and enhance the presentation skill using power point.
Credit Value/ क्रेडिट मान:	4 credits
Total Marks/ कुल अंक:	Max. Marks: (internal) + (external)

Part B – Course Content	
Unit I	**Fundamentals of Computer-** Computer- Block diagram, Uses, types, Input Devices: Point and drawn devices, scanning devices, Output Devices: Monitors & its Types. Printers – Impact, Non-Impact, Plotters. Primary Memory:-RAM (Dynamic & Static), ROM (PROM, EPROM, EEPROM), Secondary Memory - Disk, Optical disk, Data representation: Number system: Binary, Decimal, Octal and hexadecimal, Conversions.

Unit -II	MS-Windows : Introduction to MS-Windows, features of windows, various version of windows, working with windows, My computer, Recycle Bin, Desktop, Icons, Windows Explorer, Working with files, folders and shortcuts, accessories, and window settings using control panel, start button, program lists, installing new hardware and software's
Unit III	**BASICS OF MS WORD** : Creating word documents ; the word window , applying fonts and font styles in word, Aligning and formatting; finding and replacing texts spelling and grammar using the thesaurus command, getting print using print preview, changing page orientation and paper size, aligning text vertically, setting margins , printing options .Cross reference, Bookmarks, Macro and Hyperlink, Index creation, creating headers and footers , creating and modifying page numbers ,working with columns working with newspaper columns , creating tables , modifying table structure, formatting table ; use of mail merge in Microsoft word.
Unit IV	**Spreadsheet Processor** Creating Excel Worksheets: Workbook and Worksheets, Entering Text and Numbers, Creating Formulae, Changing Worksheet Layout : Adjusting Column Width and Row Height, Inserting and Deleting Rows and Columns, Naming Worksheet , Selecting Worksheets, Inserting and Deleting Worksheets, Aligning Text , Border and Color. Printing in Excel **Advanced Techniques in Excel:** Functions , Entering Functions , Relative and Absolute Cell References. Create Named Ranges, Creating Charts ; Editing and Formatting Charts ; Adding a Data Series , Deleting a Data Series , Modifying and Formatting Charts. Creation of Pivot Table To analyze worksheet data.
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Part C – Suggested Readings

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S. No.	Author	Name of the Book	Publication
1.	Will Train, Gini Courter,Annette Marquis	Microsoft Office 97	B.P.B. Publications
2.	Gini Courter,Annette Marquis.	Microsoft Office 2000	B.P.B. Publications
3.	Saxena Sanjay,S Schnd	Microsoft Office 2000 for everyone	Vikas Publishing
4.	Kari Holloway	Writer's Guide to Microsoft Word	Hearts & Blades Publishing
5.	Michael Alexender, Richard Kusleika	Access 2016 Bible	Wiley

St. Aloysius' College (Autonomous) Jabalpur			
Part A :Introduction			
Program: DIPLOMA	Class : BA	Sem:- III	Session :2023-2024
Subject:-	Computer Application		

1.	Course Code	**S2-COAP1T**	
2.	Course Title	Database Management System	
3.	Course Type(	Elective Course	
4.	Pre-requisite (If any)		
5.	Course Learning Outcomes (CLO)	On the completion of this course student will be able - • To understand database concepts, applications, structure, need and database terminologies. • To know about fundamentals of Relational Algebra and recovery & backup. • To gain skills to create logical design of databases, including the ER method and normalization approach. • To explore issues of transaction processing and concurrency control. • To acquire knowledge of back-end project management skills. • To get knowledge of Database and create own Database. • For implementation of different security features to secure the database.	
6.	Credit Value	Theory -3	
7.	Total Marks	Max. Marks: 40+60	Min. Passing Marks:35

Part B: Content Of the Course		
Database Management System		
Total No. of Lectures =45 (in hours per week):3-0-0		
Unit	Topics	No. of Lectures
I	**Introduction**: Database system concepts, Data base system, Advantages of database systems; Data Architecture of data system: View/Schema, logical, conceptual and physical and their interrelationship, data dictionary, Data base administrator. Types of Data Models:- Relational, Hierarchical and Network Model their advantages and disadvantages.	12
ii	**Entity Relationship Model as a tool of conceptual design**: Entities &Entity set, Relationship & Relationship set, Attributes, Mapping Constraints, Keys, Entity- Relationship diagram (E-R diagram) : Strong & weak entities, Generalization, Specialization, Aggregation, Reducing ER diagram to tables.	11
III	Normalization and SQL concept :- Normalization: First, Second, Third & BCNF Normal Forms, Introduction to SQL,tuple, attribute, Data types, key constraints:- primary key, Candidate key, Integrity rules : Entity integrity, Referential integrity rule.SQL Commands:- , DDL, DML, DCL, TCL syntax and examples, select query with all the clauses. Like Predicate , Operator (Between, In , Not in)	11

IV	**Advance SQL**:- SQL join operations, Sub queries and correlated queries, SQL Functions. Constraints in SQL. Introduction to PL/SQL :- PL/SQL structure, Cursors, Triggers, Stored Procedures and functions.		11

<table>
<tr><td colspan="4" style="background:black;color:white;text-align:center">Part C: Learning Resources</td></tr>
</table>

Suggested Digital Platforms, Web links
1. **https://www.greatlearning.in/academy/learn-for-free/courses/database-management-systems-dbms**
2. **https://www.learnvern.com/course/database-management-tutorial-hindi**
3. **httgs://www.geeksforgeeks.org/dbms/**
4. **https://www.tutorialspoint.com/database tutorials.htm**
5. **https://www.iavatpoint.com/dbms-tutorial**
6. **https://beginnersbook.com/2015/04/dbms-tutorial**
7. **https://www.studytonight.com/dbms/**
8. **https://www.w3schools.in/dbms/**
9. **https://www. .com/dbms-tutorial.html**
10. https://www.tutorialcuy.com/dbms
11. http://i/yww.mphindiqranthacademy.orq/

Suggested Readings:
1. An Introduction to Database System by Bipin Desai.
2. "Database System Concepts" by Abraham Silberschatz and S Sudarshan
3. "Database Management Systems" by Raghu Ramakrishnan
4. "Fundamentals of Database Systems" by R Elmasri and S Navathe
5. "Database Management Systems" by Johannes Gehrke and Raghu Ramakrishnan
6. Books published by M.P. Hindi Granth Academy, Bhopal

<table>
<tr><td colspan="4" style="background:black;color:white;text-align:center">Part D-Assessment and Evaluation</td></tr>
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Suggested Continuous Evaluation Methods:
Maximum Marks : 100
Continuous Comprehensive Evaluation (CCE) : 40 marks 'University Exam (UE) : 60marks

Internal Assessment :	Class Test	Total 40
Continuous Comprehensive Evaluation (CCE):40	Assignment/Presentation	
External Assessment:	**Section(A)** : Objective Questions	Total 60
University Exam Section: 60	**Section (B)** : Short Questions	
Time : 03.00 Hours	**Section (C)** : Long Questions	

St.Aloysius' College Autonomous Jabalpur			
PartA: Introduction			
Program: Diploma		Class : BA	Sem :- III	session:2023-2024
Subject:		Computer Application		

1.	Course Code	**S2-COAP1T**	
2.	Course Title	DBMS (Practical)	
3.	Course Type	Elective	
4.	Pre-requisite		
5.	Course Learning Out comes(CLO)	On the completion of this course student will be able - • To understand database concepts, applications, structure, need and database terminologies. • To know about fundamentals of Relational Algebra and recovery & backup. • To gain skills to create logical design of databases, including the E R method and normalization approach. • To explore issues of transaction processing and concurrency control. • To acquire knowledge of back-end project management skills. • To get knowledge of Database and create own Database. For implementation of different security features to secure the database.	
6.	Credit Value	1	
7.	Total Marks	Max.Marks: 40+60	Min.PassingMarks: 35

Part B: Contents of the Course
Data Base ManagementSystem(Practical)
Total No. of Practical =30 (each of 2 hours duration (1 Practical per week))
Practical will be conducted based on the theory Syllabus

1. **Create a table with name "Employee" having following fields:-**

Field Name	Data Type	Size	Constraint
Eid	Number	10	Primary Key
Ename	Char	20	Not null
Designation	Char	30	Not null
Age	Number	10	Not null
City	Varchar2	25	Not null
Department no	Varchar2	30	Not null
Salary	Decimal	(7,2)	Not null
BankName	Varchar2	30	Not null

Insert the following records in above table structure .

Eid	Ename	Designation	Age	City	Department	Salary	BankName
101	Ford	Manager	24	Mumbai	D1	67820.50	HDFC
102	Jenny	Asst. Mng .	30	Delhi	D1	45750.40	Axis
103	Mary	Clerk	35	Goa	D1	32000.00	Canara
104	Smith	Clerk	28	Madras	D1	28000.00	FBC
105	James	Clerk	27	Mumbai	D1	29000.00	ICICI
106	Anny	Clerk	32	Kolkata	D1	25000.00	Axis
107	Jones	Clerk	34	Delhi	D1	27000.00	HDFC
108	Michal	Clerk	31	Goa	D1	24000.00	FBC

Execute the following queries

1. WAQ to insert one new record in the table.
2. WAQ to change the Ename from Anny to Robin.
3. Delete any one record from table.
4. Add a new column in the employee table with name "email id" having datatype varchar2(15).
5. WAQ to display the entire table using DQL Command .
6. WAQ to display the specific records whose age is greater then 30 using where clause.
7. Display only the city column using where clause.
8. Display the name of employee whose name starts with "J" using predicate.
9. WAQ to find the name of the employees whose salary lies between 24000.00 to 28000.00
10. WAQ to list the number of employees whose name is not "Jenny","Mary","Ford".

St. Aloysius' College (Autonomous) Jabalpur

Part A : Introduction			
Program: Diploma	Class : BA	Sem:- III	Session :2023-2024

Subject :	Computer Application

1.	Course Code	**S2-COAP1T**
2.	Course Title	Database Management System
3.	Course Type(Core Course/Elective/Generic Elective/Vocational/...)	Minor Course
4.	Pre-requisite(If any)	
5.	Course Learning Outcomes (CLO)	On the completion of this course student will be able - • To understand database concepts, applications, structure, need and database terminologies. • To know about fundamentals of Relational Algebra and recovery & backup. • To gain skills to create logical design of databases, including the E R method and normalization approach. • To explore issues of transaction processing and concurrency control. • To acquire knowledge of back-end project management skills. • To get knowledge of Database and create own Database. • For implementation of different security features to secure the database.
6.	Credit Value	**Theory** -4
7.	Total Marks	Max. Marks: 40+60 — Min. Passing Marks: 35

Part B: Content Of the Course
Database Management System

Total No. of Lectures =60 (in hours per week):3-0-0

Unit	Topics	No. of Lectures
I	**Introduction: Database system concepts**:- Data base system, Advantages of database systems; Data Architecture of data system: View/Schema, logical, conceptual and physical and their interrelationship, data dictionary, Data base administrator. Types of Data Models:- Relational, Hierarchical and Network Model their advantages and disadvantages	12
II	**Entity Relationship Model as a tool of conceptual design**: Entities &Entity set, Relationship & Relationship set, Attributes, Mapping Constraints, Keys, Entity- Relationship diagram (E-R diagram) : Strong & weak entities, Generalization, Specialization, Aggregation, Reducing ER diagram to tables.	12

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IV	**Advance SQL**:- SQL join operations, Sub queries and correlated queries, SQL Functions. Constraints in SQL. Introduction to PL/SQL :- PL/SQL structure, Cursors, Triggers, Stored Procedures and functions.	12
V	**Functional Protection and Crash Recovery**: protection against crashes: different types of crashes; backup, journal, rollback, committed and uncommitted transactions, security on database	12

Part C: Learning Resources

Suggested Digital Platforms, Web links
1. https://www.greatlearning.in/academy/learn-for-free/courses/database-management-systems-dbms
2. https://www.learnvern.com/course/database-management-tutorial-hindi
3. https://www.geeksforgeeks.org/dbms/
4. https://www.tutorialspoint.com/database tutorials.htm 5.
5. https://www.iavatpoint.com/dbms-tutorial
6. https://beginnersbook.com/2015/04/dbms-tutorial
7. https://www.studytonight.com/dbms/
8. https://www.w3schools.in/dbms/
9. https://www. « g.com/dbms-tutorial.html
10. https://www.tutorialcuy.com/dbms
11. http://i/yww.mphindigranthacademy.org/

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Suggested Continuous Evaluation Methods:
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Continuous Comprehensive Assignment/Presentation
Evaluation (CCE):40
Section(A) : Objective Questions Total 60
Section (B) : Short Questions
Section (C) : Long Questions
External Assessment: University Exam Section: 60 Time : 03.00 Hours

St.Aloysius' College Autonomous Jabalpur				
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Subject:		Computer Application		
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6.	Credit Value	2		
7.	Total Marks	Max.Marks: 40+60		Min.PassingMarks: 35
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12. WAQ to change the Ename from Anny to Robin.
13. Delete any one record from table.
14. Add a new column in the employee table with name "email id" having datatype varchar2(15).
15. WAQ to display the entire table using DQL Command .
16. WAQ to display the specific records whose age is greater then 30 using where clause.
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18. Display the name of employee whose name starts with "J" using predicate.
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