

ST. ALOYSIUS COLLEGE(AUTONOMOUS), JABALPUR

Reaccredited 'A+ 'Grade by NAAC(CGPA:3.68/4.00) College with Potential for Excellence by UGC DST-FIST Supported & STAR College Scheme by DBT

B.A II Semester

Paper:- Open Elective

Subject:- Basics of Programming Methodology and Database -II

Course Outcomes

| CO. No. | Course Outcomes | Cognitive |
|---------|---|-----------|
| | | Level |
| CO 1 | To understand the basic concepts of computer programming | Un |
| CO 2 | To understand the concept of functions and arrays | Un |
| CO 3 | To understand the concept of database | Un, An |
| CO 4 | To understand the basic concepts of MS-Access | Un, Ap |
| CO 5 | To develop the concept of form designing and report designing using MS-Access | Ap,E |

Credit and Marking Scheme

| | Credits | Marks | | Total Marks |
|-----------|---------|----------|----------|-------------|
| | Creuits | Internal | External | |
| Theory | 3 | 40 | 60 | 100 |
| Practical | 1 | 40 | 60 | 100 |
| Total | 4 | | | 200 |

Evaluation Scheme

| | Marks | | |
|-----------|------------------------------|--------------------------------------|--|
| | Internal | External | |
| Theory | 3 Internal Exams of 20 Marks | al Exams of 20 Marks 1 External Exam | |
| | (During the Semester) | (At the End of Semester) | |
| | Best 2 will be taken | | |
| | | | |
| Practical | 3 Internal Exams during the | 1 External Exam | |
| | semester | (At the End of Semester) | |



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Content of the Course

Theory

No. of Lectures (in hours per week): 2 Hrs. per week

Total No. of Lectures: 45

Maximum Marks: 60

| Units | Topics | No. of Lectures |
|-------|--|--------------------|
| Ι | MS Access: Concepts & terms : database tables, relational database, records, fields , controls & objects , queries forms, reports , properties , wizards , macros , Creating database & tables with & without wizard, data types & properties, adding & deleting fields, primary key field & indexing fields. | 11 |
| II | MS Access Form: Form wizard, Saving & Modifying forms Entering & Editing data , Finding, sorting & displaying data creating queries, using select queries and wild cards.MS Reports: Creating reports, Previewing reports, Printing reports, modifying & Saving reports. Expressions, Create Pivot Table or Pivot Chart views in an Access desktop database. | 11 |
| III | Introduction to Programming and Characteristics. Stages in Program Development. Algorithms, Flowcharts, Types of Programming, Introduction to C Programming - Basic Program Structure, Data Types, Variables, Constants, Operators, Keywords. Data types in C(int, float and char). | 12 |
| IV | Control statements in C , Arrays - Declaration and Execution, Syntax, one dimensional array, Functions Pre-defined and User Defined Functions, Structure. | 11 |





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Text Books:

- 1., Gini Courter, Annette Marquis., Microsoft Office 2000, B.P.B. Publications
- 2., Saxena Sanjay, S Schnd, Microsoft Office 2000 for everyone, Vikas Publishing
- 3., Michael Alexender, Richard Kusleika, Access 2016 Bible, Wiley
- 4., Greg Harvey, Excel 2019, For Dummies
- 5, S.S. Bhatia, Programming in C, PHI Publication

List of Practical

- 1. Create database named "Student", create table name "Student_details". Insert 10 rows and find all the students whose marks are greater than 60%.
- 2. Create SQL query to sort the above data in ascending order.
- 3. Design a form using form wizard and update the data base.
- 4. Design a form using design view and update the records.
- 5. Design a report on above said database and implement the mathematical functions.
- 6. Write a program in C to find simple interest using arithmetic operators.
- 7. Write a program in C to implement decision control statements.
 - a. Write a program to find the greater number among two.
 - b. Write a program to check whether the entered character is vowel or consonant.
- 8. Write a program to find factorial using loop.
- 9. Write a program to implement array.
 - a. Write a program to enter 10 numbers using array and print them in reverse order.
- 10. Write a program to create user defined functions.
 - a. Write a program to create user defined function sum having no argument and no return.
 - b. Write a program to create user defined function sum with argument and no return.
 - c. Write a program to create user defined function sum having no argument and with return.
 - d. Write a program to create user defined function sum with argument and with return.
- 11. Write a program to implement structures.
 - a. Write a program to create structure of student having roll_no, name, m1, m2, m3, m4, m5 and percentage. Enter the values for roll_no, name, m1, m2, m3, m4 and m5, then find out the percentage of student.