



MADURAI KAMARAJ UNIVERSITY

(University with Potential for Excellence)

Re-accredited by NAAC with 'A' Grade in the 3rd Cycle



Prof. Dr. V. Chinniah, M.Com., M.B.A., M.Phil., B.L., Ph.D.,
Registrar

Palkalai Nagar, Madurai – 625 021,
Tamil Nadu, India.

Ref.: B1/BoS/UG/Maths & Maths with CA/Syllabus/2018

Date: 16-08-2018

To

All the Principals of Non-Autonomous Colleges
offering B.Sc. Mathematics and B.Sc. Mathematics
with Computer Application under CBCS semester pattern of MKU

Sir/Madam,

Sub: To include the syllabus for Programming in C and C++ (Practical) in the revised syllabi of B.Sc. Mathematics and B.Sc. Mathematics with Computer Application – Appendices– AI and AJ of Acadmic Council dated 26-03-2008 – intimated - reg.

Ref: Letter received the Chairman, Board of Studies in Mathematics (UG) dated 09-08-2018.

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I am to inform you that the syllabus for Programming in C and C++ (Practical) in the revised syllabi of B.Sc. Mathematics and B.Sc. Mathematics with Computer Application semester degree courses under CBCS semester pattern offered by the non-autonomous Colleges of this University, is enclosed herewith.

I request you that this may be informed to the concerned teachers and the students of your institution, accordingly.

Yours faithfully,

REGISTRAR.

Encl.: As above

Copy to:

1. The Controller of Examinations
2. The Assistant Registrar / Deputy Registrar / SDR, Strong Room
3. The Assistant Registrar / Deputy Registrar, Confidential
4. The Assistant Registrar / Deputy Registrar, UG Courses
5. The Superintendent / Sr. Superintendent - B.Sc. Semester
6. The Superintendent / Sr. Superintendent - Confidential Section

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16/8/18  
16/8/18



## COMMON TO B.Sc MATHEMATICS AND MATHEMATICS(C.A)

| Semester | Part              | Subject                           | No. of Courses | Hours per Six Working days | Credits | Marks |
|----------|-------------------|-----------------------------------|----------------|----------------------------|---------|-------|
| IV       | Allied Subject II | Programming in C++                | 2              | 4                          | 3       | 100   |
|          |                   | Programming in C & C++ Practicals |                | 2                          | 1       | 100   |

### PROGRAMMING IN C & C++ PRACTICALS

List of Programs for Practical Examination:

The Question Paper will consist of TWO parts – Part A and Part B. Each part will consist of 3 questions from the list of programs in C & C++. Students are asked to answer any THREE choosing at least one from each part. Each question will carry 25 marks.

#### C – Practical List:

1. Write a C program to calculate simple interest and compound interest.
2. Write a C program to calculate Salesman's Commission problem using if and ternary operator.
3. Write a C program for finding the roots of the quadratic equation using Switch....case statements.
4. Write a C program for testing a given number as a prime or not and finding the prime number between one and any number.
5. Write a C program for finding a sine value or cosine value.
6. Write a C program for finding the sum of two matrices.
7. Write a C program for finding the product of two matrices.
8. Write a C program for arranging the given numbers in ascending order.
9. Write a C program for arranging the given names in alphabetical order.
10. Write a C program to find the number of words and characters in a given text.
11. Write a C program to check whether a given string is a palindrome or not.



## C++ - Practical list:

1. Write a C++ program to find the simple interest.
2. Write a C++ program to convert the given temperature in Fahrenheit into Celsius.
3. Write a C++ program to find the large number by using nesting of member function.
4. Write a C++ program to find the variance and standard deviation for given n numbers.
5. Write a C++ program to display the following output.

```
1
2 2
3 3 3
4 4 4 4
5 5 5 5
```

6. Write a C++ program to add two complex numbers by using operator overloading.
7. Write a C++ program for unary minus operator.
8. Write a C++ program to illustrate the Friend Function.
9. Write a C++ program for creating employee's details using single inheritance.
10. Write a C++ program to illustrate the macro definition.



# SUBJECTS OF STUDY IN ALLIED SUBJECT I

## FOR THE COURSE

### BSc MATHEMATICS WITH COMPUTER APPLICATIONS

| Semester | Subjects                      | No of courses | Hours per six working days | credits | Maximum marks |
|----------|-------------------------------|---------------|----------------------------|---------|---------------|
| I        | 1. Fundamentals of computers  | 1             | 6                          | 4       | 100           |
| II       | 2. Database management system | 2             | 4                          | 3       | 100           |
|          | 3. Practical                  |               | 2                          | 1       | 100           |
| III      | 4. Visual programming         | 1             | 6                          | 4       | 100           |
| IV       | 5. Programming in Java        | 2             | 4                          | 3       | 100           |
|          | 6. Practical in Java          |               | 2                          | 1       | 100           |