

Lesson Plan for Course: B.Sc. (G) Class-3rd Year Code: MTMG Paper-IV Marks: 100

- Course Name: Elements of Computer Science and Programming, Discrete Mathematics
- Course coordinator: Biswajit Sarkar
- Course Outcomes:
 - CO-1. To learn Two-element Boolean algebra, Boolean function and their applications.
 - CO-2. Learn Logical Gates.
 - CO-3. Concept on historical development, operating system, hardware and software.
 - CO-4. Able to transfer numbers from a system to another.
 - CO-5. To get some basic knowledge Programming (BASIC, FORTRAN, C, C++,).
 - CO-6. Learn utilities and important features of Algorithms and Flow Charts;
 - CO-7. To know some Programme execution control (logical if, if-then, Arrays, etc.)
 - CO-8. Apply Weierstrass M-Tests for uniform convergence of sequence of functions.
 - CO-9. To find Radius of convergence of power series and use of Abel's Theorems.
 - CO-10. To know elementary properties of Laplace Transform and its inverse in ODE.
 - CO-11. Solve PDE using Lagrange's method.
 - CO-12. Learn mathematical Induction and apply in different problem.
 - CO-13. To use Chinese remainder theorem to solve system of linear congruence.
 - CO-14. To understand Fermat's little theorem, Euler's theorem and Wilson's theorem.

Course planner

Month	Course Topic	Teacher	No. of Classes	Remarks*
July	Discrete Mathematics (Unit 1-4)	PD	06	Theoretical-09 Tutorial-02
	Elements of Computer Science and Programming (Unit-A)	SM	05	
August	Discrete Mathematics (Unit 1-4)	PD	10	Theoretical-18 Tutorial-04
	Elements of Computer Science and Programming (Unit-A)	SM	12	
Sept	Discrete Mathematics (Unit 1-4)	PD	09	Theoretical-14 Tutorial-02
	Elements of Computer Science and Programming (Unit-A)	SM	07	
Oct	Discrete Mathematics (Unit 1-4)	PD	03	Theoretical-07 Tutorial-00
	Discrete Mathematics (Unit 5-6)	SM	04	
Nov	Elements of Computer Science and Programming (UnitA)	PD	05	Theoretical-07 Tutorial-01
	Discrete Mathematics (Unit 5-6)	SM	03	
Dec	Elements of Computer Science and Programming (Unit-A)	PD	07	Theoretical-12 Tutorial-02
	Discrete Mathematics (Unit 5-6)	SM	07	
Jan	Elements of Computer Science and Programming (Unit-A)	PD	02	Theoretical-05 Tutorial-01
	Discrete Mathematics (Unit 5-6)	SM	04	
Feb	Elements of Computer Science and Programming (Unit-A)	PD	08	Theoretical-10 Tutorial-04
	Discrete Mathematics (Unit 5-6)	SM	06	
Mar	Final Examination			
Apr				
May				
Jun				
	Assessment: Test Examination		Total: 98	Theoretical-82 Tutorial-16

Books:

- D. Chaterjee & B. K. Pal, Comprehensive Degree Mathematics (Part-3), U. N, Dhur & Sons Pvt. Ltd.
- C. Xavier, FORTRAN 77 and numerical methods (Wiley Eastern limited).
- Yashvant Kanetkar, Let us C (BPB Publications).