FIRST SEMESTER 2015-2016
COURSE HANDOUT (Part II)

In addition to Part I (General Handout for all courses appended to the time table) portion here gives specific details regarding the course.

Course Number : BITS F113
Course Title : General Mathematics I
Instructor-In charge : RAJIV KUMAR

Scope and objective of the course: Course deals with intermediate mathematics needed for Pharmacy students. Course covers set theory, Functions, Coordinate geometry, basic algebra & theory of equations, permutations and combinations, Binomial theorem, Trigonometry, One Dimensional Calculus: Limit and continuity, Differentiation, Integration, Appl. of derivatives and definite integration.

2. Text Books:

1 Mathematics for Class XI : Text book for CBSE national council of educational research and training .
2. Mathematics for Class XII part I : Text book for CBSE national council of educational research and training .
3. Mathematics for Class XII part II : Text book for CBSE national council of educational research and training

3 Reference books :

1 Thomas Finney : Calculus & analytic geometry 12th edition Pearson

2 Stewart : Calculus early transcendentals 5e 2003 thomson .

3 Lectures of Prof M Ganesh on review of elementary Calculus for the

Course Engineering Math.

4 Lecture Plan:

Lect	Topic	Article
1&2	Sets, operation on sets, finite and infinite set, power set, Cartesian product, relations and functions	Chapter I &II of text book I

3-6	Trigonometric functions and their identies, simple trigonometric equations, trigonometric functions of sum and differences of two angles, inverse trigonometric functions	Chapter III of text book I , Chapter II text book 2
7	Complex numbers and quadratic equations	Chap. V article 1-4 & 6
8-9	Permutations & Combinations	Chap.VII of text book I
10	Binomial theorem for positive integer power	Chapter VIII of text book I
11,12	Arithmetic progression, geometric progression, Arithmetic mean , geometric mean ,infinite series , infinite geometric series ,exponential and logarithmic series	Chap. IX& appendix 1 of text book 1
13-15	Condition for parallelism and perpendicularity of two lines , angle between lines Equations of line in various forms(slope, intercept, through given two points, slope point, general) distance of a point from a line	Chapter X of text book I
16-19	Conic sections, eccentricity, latus rectum, Locus, circle, parabola, hyperbola, ellipse, pair of lines.	Chapter XI of text book I
20-22	Three dimensional geometry (distance, equations of line and plane in space, distance of a point from plane, equation of sphere)	Chap. XII of text book 1 & Chap. XI of text book 3
23-33	Limits , continuity , differentiability , higher order derivatives , Chain rule Logarithmic differentiation, mean value theorem, Rolle's theorem, Applications of derivatives to rates, slope of tangents, maxima and minima, indeterminate forms	Chap .XIII textbook 1.Chap. V & VI text book 2
34-40	Concept of anti derivatives and indefinite integrals, Methods of substitution, parts, partial fractions, trigonometric reduction formulas, fundamental theorem of calculus, Definite integrals, area under curve	Chapter VII & VIII of text book 3

5 Evaluation Scheme:

EC No.	Evaluation Component	Duration	Weightage (%)	Date & Time	Remarks
1	Mid-Semester	90 minutes	35	9/10 10:00 - 11:30 AM	Closed Book
2	QUIZ	-------	20	unannounced	Open book
3	Comprehensive	3 Hours	45	10/12 AN	Closed Book

6 Announcements: All announcement in relation to the above course will be put up on the Math Dept NB

7. Make up policy:

Make up for the mid-semester/comprehensive examination will be given to genuine cases .

8. Chamber consultation hours: To be announced in the class.

Instructor In-Charge
BITS F113