



Dharampeth M. P. Deo Memorial Science College, Nagpur

Syllabus wise You Tube Links

B. Sc. SEM V (Mathematics)

M-10: Metric Space, Boolean Algebra & Graph Theory(Optional)

Unit I

Countable set, Uncountable set, Metric spaces, Interior point, Open set, Limit point, Closed set, Closure of a set, Dense set.

https://www.youtube.com/watch?v=6qpxS7EW_Cw&list=PLU6SqdYcYsfKvYZhiXPoaR5fBYDYXENSn

Unit II

Complete metric space, Compact Set, Connected set.

https://www.youtube.com/watch?v=6qpxS7EW_Cw&list=PLU6SqdYcYsfKvYZhiXPoaR5fBYDYXENSn

Unit-III

Partial order relation, Partial ordered set, Lattices as Partially ordered set, Some properties of Lattices, Lattices as algebraic systems, Sub-lattices, Direct product and homomorphism, Some special lattices. Boolean algebra, Sub-algebra, Direct product and homomorphism, Boolean functions, Boolean forms and free Boolean algebra, Values of Boolean expressions and Boolean functions.

<https://www.youtube.com/watch?v=wGLTV8MgLIA&list=PLU6SqdYcYsfJ27O0dVuMwafS3X8CecqUg>

Unit IV

Graph Theory: Basic concepts, Path, Reachability and connectedness, Matrix representation of graphs, Trees, Storage representation and manipulation of graphs.

<https://www.youtube.com/watch?v=wGLTV8MgLIA&list=PLU6SqdYcYsfJ27O0dVuMwafS3X8CecqUg>