

**SARDAR PATEL UNIVERSITY**  
**Programme & Subject: B.Sc (Mathematics)**  
**Semester: VI**  
**Syllabus with Effect from: November/December-2013**

<b>Paper Code: US06CMTH03</b>	<b>Total Credit: 3</b>
<b>Title Of Paper: Topology</b>	

Unit	Description in detail	Weighting (%)
I	Topological spaces : De- nition and examples , Open and close sets in topological spaces , Usual topology and S - topology on R , Comparison of topologies , Neighbourhood .	
II	Cluster points , Closure and interior points of a set , Definition and examples of a door space and dense set , Continuity in a topological space and homeomorphism .	
III	Definition and examples of connected and disconnected spaces , Connectedness in R , Relative topology , Connected subspaces , Open cover , Compact space .	
IV	Compactness in $R_1$ ; $R_2$ and metric space, Properties of compact spaces , Definition and examples of $T_0$ ; $T_1$ ; $T_2$ - space , Hausdorff property of a metric space .	

**Recommended Texts :**

- M. J. Mans-eld , Introduction to Topology , CBS Publishers & Distributors , Delhi .
- Chepter : 2 ( Only 2.2 , 2.3 , 2.5 ) , 3 ( Only 3.3 , 3.4 ) , 4 , 5 , 6 ( Only 6.1 ) .

**Basic Text & Reference Books:-**

- G . F . Simmons , Introduction to Topology and Modern Analysis .
- R . R . Goldberg , Methods of Real Analysis .

