# Assignment 6

#### PRABHAV SINGH (BT21BTECH11004)

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# Outline

Question

Solution

### Question

Show that if S consists of a countable number of elements  $\zeta$  and each subset  $(\zeta)$  is an event, then all subsets of S are events.

#### Solution

Since S contains countable number of elements ,therefore Any subset of S will contain a finite number of elements. Hence, it(each subset) can be written as a countable union of elementary events or sample points . So it is clear that all subsets of S will be an event.