# Paper - VI
## Group theory I

### Short type

(1) Define abelian group with example

(2) Define homomorphism

(3) Every cyclic group is an abelian group.

### long

(4) Prove that the normalizer $N(a)$ of $a \in G$ is a sub group of $G$

(5) Prove that cyclic groups of same order are Isomorphic

(6) if $H_1$ and $H_2$ are two subgroups of a group $G$ then $H_1$ and $H_2$ is also a sub group of $G$.