

MC College, Barpeta
TDC 3rd Sem (CBCS) HON
Internal Evaluation, 2023

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ASSIGNMENT: SOLVE FOLLOWING:

Let H be a subgroup of G , and let a and b belong to G . Then,

1. $a \in aH$.
2. $aH = H$ if and only if $a \in H$.
3. $(ab)H = a(bH)$ and $H(ab) = (Ha)b$.
4. $aH = bH$ if and only if $a \in bH$.
5. $aH = bH$ or $aH \cap bH = \emptyset$.
6. $aH = bH$ if and only if $a^{-1}b \in H$.
7. $|aH| = |bH|$.
8. $aH = Ha$ if and only if $H = aHa^{-1}$.
9. aH is a subgroup of G if and only if $a \in H$.

LAST DATE: 17 SEP, 2023