United College of Engineering and Research, Prayagraj
Department of Computer Science

B.Tech(2020-21)
Discrete Structures and Theory of Logic(KCS 303)
Assignment-3

QNo.	Question	CO Type	Bloom's level
1	Show that every group of order 3 is cyclic.	CO2	L3
2	Show that (R-{1}, *), where the operation * is defined as a*b = a+b-ab, is an abelian group.	CO2	L3
3	Show that if f: G → G' is an isomorphism and G is an abelian group then G' is also abelian.	CO2	L4
4	Prove that if every element of a group except identity element is of order 2 then group is abelian.	CO2	L3
5	If a and b are two elements of a group G then $(ab)^2 = a^2b^2$ if and only if G is an abelian.	CO2	L2
6	Define ring and give an example of a ring with zero divisors.	CO2	L2
7	Prove that every cyclic group is an abelian group.	CO2	L3

Bloom's Taxonomy levels (1- Remembering, 2- Understanding, 3- Applying, 4- Analyzing, 5- Evaluating, 6- Creating)

CO - Course Outcome